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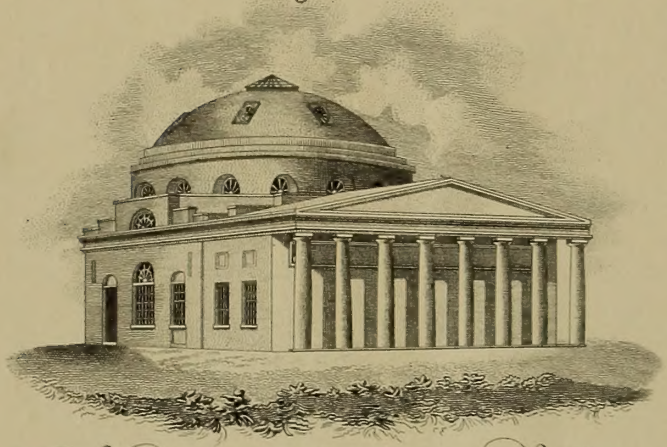

University of Maryland

University of Maryland Theses

Early Doctor of Medicine and Doctor of Physic Dissertations with Corrected Tables of Contents

These manuscripts described as either an Inaugural Dissertation or an Inaugural Essay were presented to the University of Maryland for the Degree of Doctor of Medicine and/or Doctor of Physic during the years 1813-1887. The individual dissertations were bound together during the 1940's. The original tables of contents for the bound volumes contained multiple errors in authors' names, titles, and/or years. To address these errors, an additional "Corrected Table of Contents" has been inserted at the beginning of each volume.

The project team who investigated and corrected the tables of contents were Richard J. Behles, Historical Librarian/Preservation Officer; María Milagros Pinkas, Metadata Management Librarian; Angela Cochrane and Carol Harling-Henry, Resources Division; Sarah Hovde, Abra Schnur and Megan Wolff, Services Division.

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(CORRECTED TABLE OF CONTENTS)

UNIVERSITY OF MARYLAND

THESES

1878 (b)

| Author | Title |
|---|---|
| Norris, Robert R. | Acute Articular Rheumatism |
| Trader, Charles W. | Antiflexion of the Uterus |
| Floyd, William G. | Cholera Infantum |
| Norris, Rhesa M. | Pneumonia |
| Brown, John J. | Typhoid Fever |
| Norris, J. Dimmitt | Scarlet Fever |
| Bateler, W. C. | Science and the Successful Physician |
| Bales, C. J. | Digestion |
| Towles, Le Roy C. | Chorea |
| Thomas, Fredrick | Typhoid Fever |
| Dallam, Edward P. | The Eye |
| Lewis, Frank W. | Indigestion |
| Keller, Franklin P. | Diagnosis |
| Mowers, Joseph H. | Pneumonia |
| Love, James H. | Typhoid Fever |
| Barnum, Zenus | Urine |

HSHSL 2012 for the UM Digital Archive. Sources consulted for corrections: Original Dissertation; University of Maryland Medical Faculty, Matriculation List, 1851-1892; Cordell, Eugene F. "University of Maryland, 1807-1907" (New York : The Lewis Publishing Company, 1907), Volume 2.

UNIVERSITY OF MARYLAND

THESES

1878(b)

| | | |
|---|---|---|
| Norris, ~~R.~~ Robert R. | Acute Articular Rheumatism (stained) | 19p. |
| Trader, ~~Chas.~~ Charles W. | Antiflexion of the Uterus | 27p. |
| Floyd, ~~Wm.~~ William G. | Cholera Infantum | 38p. |
| Norris, ~~R.~~ Rhesa M. | Pneumonia | 13p. |
| Brown, John J. | Typhoid Fever | 51p. |
| Norris, J. ~~D.~~ Dimmitt | Scarlet Fever | 20p. |
| Bateler, W. C. | Science and the Successful Physician (not in condition) | 48p. |
| Bales, C. J. | Digestion | 17p. |
| Towles, LeRoy C. | Chorea | 23p. |
| Thomas, ~~F.~~ Frederick S. | Typhoid Fever | 16p. |
| Dallam, ~~E.~~ Edward P. | The Eye | 21p. |
| Lewis, ~~F.~~ Frank W. | Indigestion | 37p. |
| Keller, ~~F.~~ Franklin P. | Diagnosis (practically finished) | 14p. |
| Mowers, ~~J.~~ Joseph H. | Pneumonia | 27p. |
| Love, J. ~~W.~~ James W. | Typhoid Fever | 21p. |
| Barnum, Zenus | Urine | 13p. |

A Thesis

On

Acute Articular Rheumatism

by

R. R. Morris. of

Maryland.

Session 1877.+78.

40

Mb
18979

# Acute Articular Rheumatism.

Acute Articular Rheumatism is a non suppurative inflammation of the Fibrous Tissues surrounding the Articulations or joints; but by what is usually called Metastasis may involve other Tissues as within and around the heart for which it shows a special tendency.
The inflammation in those parts differ from that of the joints, and it is more convenient to consider them in light of complications
Hence I will consider the disease as it occurs.

in the articulations and then speak of its complications.

Acute Articular Rheumatism in a majority of the cases comes on suddenly and without any prodromic symptoms. In a few cases there is a slight febrile movement preceeds the local manifestations of the disease. The development of the disease is noted by an affection of one or more of the joints. The local phenomina are pain, tenderness, increased heat, swelling and redness of the skin.

The pain differs in intensity owing to the severity of the attack but as a rule is not so severe as long as the parts are at rest. consequently the patient becomes fixed in one position from which he is afraid to stir. In severe cases the slightest motion is insupportable even jarring the Bed or Room occasions suffering. Swelling is most apparent in joints not covered with muscle. The swelling is due to a morbid increase of Liquid within the Synovial Cavity and effusion into the sur

rounding structures - The redness is only apparent over joints comparatively superficial. The swelling and redness are in general proportionate to the acuteness of the attack. In some cases several joints are affected at the same time, or in quick succession. In other cases the disease is limited to a single joint for a greater or less period. It is a peculiarity of this affection to leave one or more joints abruptly, the local phenomena disappearing in a few hours, and to attack

as abruptly other joints
Acute Articular Rheumatism
is very irregular in regard
to the number of joints
effected. In some cases in
the course of the disease few
or no joints escape, and in
others the inflammations is
limited to a few joints or
to a single joint. This disease
is always accompanied with
more or less fever, and is
sometimes called Rheumatic
fever. The intensity of the
fever is not always proportionate to the number of joints
effected, or the intensity of the

Rheumatic inflammation as denoted by pain soreness heat &c. The pulse rarely exceed 90 beats per minute. Temperature ranges from 100° to 110° Fahr.

Sweating is a symptom more or less prominent, generaly occurring at night, emitting a sour oder, In connection with more or less sudamina or vesicles, which frequently occur on the Neck & Trunk. This sweating is remarkable for its exhausting effect on the patient without alleviating his suffering

occurs which is rare. A mild delirium is sometimes observed, wakefulness is a source of great discomfort caused by pain on the change of position and the profuse prespirations. Acute Articular Rheumatism shows a special tendency to attack certain structures of the heart. The Endocardium more frequently, the inflammation seems to have a preference to the membrane lining the left side or cavities of the heart especially the portion entering into the composition of the Mitral Valve.

Rheumatic Endocarditis in a large proportion of cases is the cause of valvular lesions of the heart especially Mitral.
The inflammation in the Tissues of the heart exhibits a peculiarity which does not present itself when located in the joints.
as a rule, the ordinary results of inflammation are observed viz- Exudation of Lymph formation of false membrane and sometimes suppuration.
The structures of the heart may become involved at any period in the course of the disease; but the liability is

greatest in the early stage of the inflammation. Bronchitis, Pleuritis and Pneumonia are sometimes developed, but these are supposed to be accidental complications. The meninges of the Brain may be effected, examples are rare, Delirium Coma and convulsions have been observed in a small number of cases. Acute Articular Rheumatism is a self limited disease but the minimum and maximum of this disease is widespart when left to itself without any medicinal treatment.

There is a great deal to be learned yet, in regard to the continuance, the complications and the remote consequences in the organism effected by Articular Rheumatism.
The true Pathology is as yet unknown. this disease has been closely observed by Pathologist, and it is now generally conceded by them that there is a Materias morbi existing in the blood which gives rise to the disease, the nature of which is not agreed upon by all Pathologists. The morbid principle is now believed to be Lactic acid,

and it is generally accepted to be a rational basis of treatment. This principle is what may circulating with the blood, acts upon certain tissues and gives rise to local manifestations of the disease.
Rheumatism is supposed to be frequently caused by suppression of the functions of the skin, and especially the action of cold upon the body. A special predisposition seems to be requisite for the causation of this disease.
This may be congenital and inherited, or it may be acquired

age appears to have a marked influence over its causation, may occur at any period of life; but usually between 10 and 35 years of age.
The susceptibility of the male to this disease seems to predominate, but the difference is not very marked.
The Diagnosis is generally easy. It is to be discriminated from Gout and Rheumatic Gout.
The diagnostic features are generally so well marked that the disease is very readily recognised. It may locate itself in a single joint, when thus

may be confounded with Synovitis, or simple acute Arthritis. Some cases of Pyemia in which a purulent effusion into certain joints has been mistaken for Rheumatism.

The disease very seldom if ever proves fatal within itself. When death occur it is due to complications such as Pericarditis, and Pulmonary affections. Endocarditis which is liable to occur often produces valvular lesions of the heart which in after years may occasion serious inconvenience

Treatment. I will not attempt to give an account of the various modes of Treatment which has been practiced during the last 25 years but will confine myself to the modern views on the subject. The Alkaline Treat. is now generally adopted by the Profession the rational mode of treatment would be to arrest the production of the Materias Morbi contained in the blood. There are no known means of accomplishing this end - next to this, to neutralize and eliminate

the morbid principle from the blood are the effects of treatment.

Assuming the principle to be Lactic Acid, it is neutralized by the introduction of Alkalies and an effect of the treatment is an increase of Urine. The Alkali selected should be given in full doses and frequently until the Urine gives an Alkaline reaction. In order to secure its protective agency against Cardiac affections. Of the Alkalies the Bicarbonate of Potassa or Soda are the most reliable.

as soon as the Urine becomes Alkaline the remedy should be diminished in frequency & quantity.

This mode of treatment does not interfere with other Therapeutical measures which are called for to meet the indications in individual cases—

Bleeding is very seldom, if ever advisable, may be employed under some circumstances when the fever is intense, and the patient Plethoric.

Tr of Aconite is good as an Arterial Sedative & Antipyretic.

Full doses of Quinine if well borne

are useful. Continued purging is never indicated. Opiates should be given according to the amount of pain, restlessness and vigilance, especially at night.

Salicylic Acid has recently been tried in Acute Rheumatism with very satisfactory results which is probably due to its Antipyretic effects. Tonics, and especially the preparations of Cinchonidia are useful. Wine or Spirits are sometimes of marked benefit in small quantities.

The affected joints should be

treated locally with some Anodyne liniment – Chloroform and Aconite is very good – The joints may be enveloped in cotton or flannel. Methodic friction sometimes affords marked relief –

A Thesis on

[illegible]

by

[illegible]

[illegible]

[illegible] 1774 A.D.

[illegible]

[illegible] "than this variety of displacement of the [illegible]. It is full of interest" and if we wish to become familiar with its Pathology, Diagnosis, Treatment, &c. it requires close inspection and research &c." [illegible] and [illegible]. We learn that the ancients were enlightened to some extent upon this subject. But it seems [illegible] displacements as they occurred during Retro Gestation. They were aware that displacements occurred [illegible] [illegible]. They did not see that the [illegible] [illegible] from [illegible]. It was not until 1800, that the differential diagnosis [illegible] [illegible] and

[illegible] d Flexions!! Anchylosis was [illegible] [illegible] warning limits: that of an anterior variety in 827." But as Mr Thomas states in his book [illegible] [illegible] of the eminent Services of Simpson who introduced the use to Obstetric surgeons" [illegible] determining the Obstetric limits.

Anteflexion signifies a bending of the uterus so that the fundus the organ or body are [illegible] [illegible] simple [illegible] [illegible].

There are three forms of Anteflexion First Confirmed flexion, Second Cervical flexion Third Cervico corporal flexion.

Corporal flexion is where the cervix is in normal position and the body flexed.

Cervical flexion exists when the [illegible] [illegible]

[illegible]

[illegible] pushed forwards [illegible] The Cervix is [illegible] body inclined backwards [illegible]

[illegible] "The most frequent of these are [illegible] Dysmenorrhœa; Leucorrhœa; Menorrhagia; [illegible] Sterility &c. &c. [illegible] [illegible] &c. [illegible] [illegible] [illegible]

[illegible] "bad" or [illegible] which [illegible]
[illegible] "force" prevents them from ascertaining
the condition. [illegible]
[illegible] to [illegible]
[illegible] to be [illegible]
[illegible] to [illegible] [illegible]
[illegible] [illegible] [illegible]
I have from self experience that thousands
of women suffer on this account and live
a life of misery. Many women who
have been suffered for years from [illegible]
to [illegible] more [illegible] and have by [illegible]
treatment been rendered comfortable with

Degree by digital touch.

Patient [illegible] placed [illegible] the back and
the left hand with the [illegible]

[illegible] finger is then passed into the vagina and is allowed to slide over the anterior wall until a protuberance will be felt. [illegible] the [illegible] [illegible] the bladder the [illegible] should be kept apart. This [illegible] [illegible] the abdomen and [illegible] so that the finger [illegible] an [illegible] to the [illegible] [illegible] [illegible] the [illegible] [illegible] the [illegible] [illegible] shape. The [illegible] [illegible] the [illegible] [illegible] or either [illegible] the [illegible] [illegible] [illegible]

[illegible] different curve. He should before using the forceps" ascertain as far as possible the course of the instrument which is to be used. By thus [illegible] the [illegible] from the uterus, [illegible] &c.

The [illegible] may have entered the tissue which was felt in the vagina" then we may readily conclude it is the Pelvic body. But if it enters in the normal axis or backwards it is not the Pelvic body" even some [illegible] different to the axis of the organ. ——— Prognosis

The prognosis depends also upon the [illegible] you have to deal: If Multiparous" it is far better than if "nulliparous" for the reason in the Multiparous [illegible]

[illegible]

[illegible] it is most commonly of a congenital form" and if of this nature it is exceedingly unfavorable unless you to the hips and thus a very [illegible] in a great many instances". The prognosis is decidedly more favorable when only one is flexed" than when the Coxa or both Coxa and both are flexed" If on the other a Coxa" [illegible] [illegible] [illegible] and if the Coxa is [illegible] high up on the pelvis" and [illegible] backwards it is unfavorable. If the [illegible] [illegible] [illegible] [illegible] it is [illegible]

Causes

[illegible]

[illegible] Predisposing" & Exciting. [illegible]

[illegible] Predisposing causes.

If from any cause

[illegible]

[illegible] of course

[illegible]

[illegible] displacement of the [illegible] "The most

[illegible] of the Predisposing causes are"

[illegible] Constitution: Impoverishment of the blood"

[illegible] Enfeebled nervous State" Extreme youth" or

[illegible] Laborious occupations" [illegible]

[illegible] the abdominal walls" And influences

[illegible] [illegible]

[illegible] [illegible]

and State that the Cervix Uteri has
[illegible] to [illegible]
and [illegible] of its power be weakened by
either cystic or fatty degeneration" or influence
[illegible]
The Existing causes are Endometritis"
[illegible] "Degeneration" Areolar
[illegible] "Tumors" and numerous
[illegible] one which I must not omit
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]

[illegible]

[illegible] seemed to [illegible]

that the "one [illegible] distinct" to [illegible] the

result in [illegible] [illegible]. He leads the

[illegible] to [illegible] that this is the

reason "by" [illegible] "[illegible] [illegible]

[illegible] in the [illegible]. There

is a [illegible] of two [illegible] occurring

at same time and has been met

with more frequently than one would think.

"Frequency" of these the statistics show

conclusively "that of syphilis is the most

frequent [illegible] in [illegible] of [illegible] 84.1. [illegible]

that he is [illegible] [illegible] in

healthy women" he was inclined to believe

it was normal but inspection shows us

that this may be so in early life and

[illegible] the varieties" and
the different modes of treatment. First of
the reducible variety.
We should now examine the patient and
learn the condition of the uterus and
how to proceed. A pessary may be
introduced of suitable form" but should
always remember" that flexures are much
more tardy in their nature than "versions"
and it would be wrong to act hastily
upon all occasions". If by our act we
should attempt to replace the organ to
its normal position - we might unfortu-
nately lead to endometritis which might
[illegible] to our patient and our
own reputation" and as flexures are nearly
always the results of [illegible]

[illegible] [illegible] [illegible] [illegible] [illegible] [illegible]

the Patient again remove the necessary
dress should have been an [illegible]
necessary. The application of the
Formas is a very efficient one" but has
the disadvantage of being difficult
restricted to one or two. It is exceedingly
difficult to remove not only by the Patient
but by the "[illegible]" after making
a second examination we should
replace the Bandage and re-apply an
absorbent for days or until it
find improvement to a marked degree
swelling and abdominal discomfort cease
so far as practicable go around
and attend to duties of their business of the
nature that not lifting or straining
required as yet recovered first one should

also is upon us in the [illegible]
a [illegible] pest [illegible] and [illegible] the
a variety of this description by being
deprived of these elements which are so
essential for health and vigor in
our [illegible] often made worse and
probably [illegible] due to [illegible]
[illegible] in its results. Thus the [illegible]
is in its normal position and the [illegible]
gland is the second variety and is
altogether a different position and demands
different treatment from the [illegible]
form. There are cases and not infrequent
they suppose where this exist and is
lost sight of altogether and it is a
[illegible] impossibility in one to treat the
variety issues in [illegible] the [illegible]

[illegible] the [illegible] of [illegible]
[illegible] the [illegible] as [illegible] of the
[illegible] from [illegible] [illegible]
[illegible] of the [illegible] [illegible]
introduce an intra uterine Stem Pessary
that of Wright's [illegible] [illegible] [illegible]
[illegible] and [illegible] [illegible] [illegible]
[illegible] but the extra uterine stem [illegible]
at times [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible] [illegible] [illegible]
of Vulcanite. It consist of a smooth
block of Vulcanite or of a shell of the
the same material which fills the [illegible]
and [illegible] [illegible] [illegible] [illegible]
the [illegible] to restitution [illegible] [illegible]
[illegible] advantages it [illegible] [illegible] [illegible] [illegible]
[illegible] and the [illegible] [illegible] [illegible]
it was invented by Dr [illegible] [illegible] [illegible] [illegible]

[illegible] has extension [illegible]
[illegible] when the position and has a tendency
to [illegible] the [illegible] [illegible]
[illegible] Cromer advises the use of
the Laminaria tent, maintaining that
the axis of the [illegible] may be brought
to coincide with that of the body he also
states that this is [illegible] to
make an opening for the passage of
fluids from the uterine cavity, but is
not an advocate of the use of [illegible]
tents on all occasions, [illegible] Simms
recommends the plan of stretching the
[illegible] ligaments as much as
possible by the hand [illegible]
[illegible] of [illegible] of [illegible],
This gentleman advises the use of the

[illegible] of the [illegible] [illegible]
of an incurable variety when the regard
given the Canal [illegible] [illegible]
the [illegible] and [illegible] of [illegible]
which should be observed by those who
are employed where they are too [illegible]
on the Canal may be increased
by a near chance to examine the [illegible]
as often as possible that [illegible]
time in [illegible] at first, and then
afterwards occasionally. After [illegible]
this [illegible] of [illegible] [illegible]
things [illegible] "header" and let [illegible]
[illegible] until we feel assured that it
is [illegible] [illegible] In speaking
of Hurd's pessary there are two [illegible]
as regards the Central canal.

[illegible] Dr. Sims Devices was [illegible] and
in a large number of cases it is the [illegible]
[illegible] only means we can employ to get
in any way to replace the organ and
[illegible] it [illegible] in the form of [illegible]
[illegible] first brought in notice it did not
meet with acceptance and was ~~the~~ abandoned
by the inventor" and again it was
[illegible] for time" again" cast aside
through the reason's unjustifiable. But
it has in the last few years been
brought back again and the united
the gynaecologist in a great many
cases all admit that it is either
all other surgical measures" or better
provide as good when not more certainly
and sometimes unfortunately – [illegible]

is hazardous without any assignable cause; some have found it destroy sensibility in the organ before we use such pressure. It is our duty to ascertain the condition of the organ lest if any inflammation exist in the Uterus

Dr. Pennie's instrument answers the condition well, that is the one he uses for examination; it can be withdrawn easily as the pressure of the body and the stem [illegible] through the and when [illegible] into the Uterus.

The patient should not [illegible] if it does rise to pain. They should be withdrawn at each menstrual period" and in their

introduction care should be taken to warn
our patient against exercise she should
remain absolutely quiet in bed and if
in consequence of discomfort [illegible]
so she should remove it. This measure
will in most instances accomplish good
in a not large proportion of cases [illegible]
results.

The pathology of the third variety I have
not yet been able to consider to some extent
the [illegible] as it is mostly [illegible] useful in
this [illegible], if [illegible] any cause [illegible]
of the [illegible] is determined [illegible]
structural disease as first described by Lagrange
and insisted upon afterwards by Bennett in
"Consultations" on inflammation affecting the [illegible]
and is for instance [illegible] [illegible]

being attached to its walls" dragging upon them or from laborious occupations" the organ being in this state it is likely to cause a curve in the axis of the organ" moreover if the uterus is so its tone pressure upon it by tight dressing and constipation is apt to cause it to incline forwards Mr Thomas speaks of walls of one side of the uterus growing faster than the other" by excessive nutrition which and the other interfered with has given to the interfered side a concavity" and of one wall develop more decidedly than the other a displacement is more liable to occur on the concave side" than the enlarged one. Thus if the anterior wall receives an excess of nutrition we are apt to have ~~anteflexion~~ retroflexion" reverse likewise on the other hand

let [illegible]

[illegible] would be [illegible] [illegible] [illegible] [illegible]
[illegible] rise to symptoms as soon as the [illegible]
[illegible] if this occur [illegible] should [illegible] [illegible]
[illegible] in the first place" the obstruction
would prevent egress of the menstrual flow
and the course would form clots and be
expelled at each effort" with tenesmus
which gives rise to dysmenorrhoea" and
causes sterility [illegible] [illegible]
[illegible]. Ovular hyperplasia is a not
frequent result" resulting from congestion
of the mucous membrane which causes it to
increase the weight of the [illegible] and thus
[illegible] do progress to the further advancement
and thus give rise to retrograde ovarian irritation
(says Dr Barnes). This form is most certainly
incurable unless we resort to the "[illegible]" [illegible] at

procedure of this kind so often attended with
alarming accidents we must remember that
[illegible] as vascular as the kidneys should
not be tampered with by the inexperienced
practitioner nor should they who are skillful regard
it as simple and unattended with danger
the operation is simple indeed but often results
in some form of inflammation such as Peritonitis
or Pelvic Cellulitis which if ~~does~~ do not prove
fatal, may give rise to distressing and
[illegible] sickness But this is the
[illegible] we can resort to for cure or
permanent relief therefore we should not
[illegible] operation which is disagreeable
to practised by the most enlightened
[illegible] the operation
[illegible]

[illegible] the cervix" overcoming the [illegible] friction" we then remove the mechanical [illegible] stimulation" and remove the tendency to congestion [illegible] "Then anesthetized" and placed in position [illegible] speculum is introduced" the cervix is seized [illegible] tenaculum firmly" the double scissors is made to cut off a small strip of tissue [illegible] quarter of an inch wide extending from [illegible] os externum to the vaginal junction [illegible] instrument cut off the upper part of the [illegible] as the instrument [illegible] cut enough anteriorly" Then some knife carried up and the extremities of the tissue cut so as to make the canal straight and unobstructed. Mr. Emmet has devised

his method. He objects to Dr Sims method
on the grounds that the wound often heals
after [illegible] under the care of the
operator." After treatment
[illegible] a roll
of Iron Iron is introduced. an made
fill the cervix from os internum to os
externum then a tampon of wet cotton
should be fixed [illegible] the should
[illegible] in course of 24, or 36, hours
though the Iron cotton should remain
[illegible] four days as not to let the canal
[illegible] again. but it should be renewed
after this period has elapsed" and the
[illegible] replaced" by [illegible]
nervousness of the canal" we should build
[illegible] health by tonics and of

advisable in a month or two introduce the intra uterine Stem pessary. This concludes [illegible] Retroversion of the Uterus. I [illegible] to say since my stay in Monroeville, [illegible] the [illegible] of treating [illegible] "Typical cases of this disease" and [illegible] the chair of Gynecology too in his precise & unerring manner to merge the importance of understanding proper pathology, treatment and results and also [illegible] the favorable opinions of the Faculty to judge of my ability from their [illegible]

An
Inaugural Dissertation on
"Cholera Infantum,"
Most Respectfully submitted
to the
Trustees, Regents and Faculty
of Physic of the University
of Maryland.

By

W. J. Hayes.

(West Point, Virginia)
1878

To

William T. Howard M.D.

Professor of the Diseases of Women and Children and Clinical Medicine in the University of Md., for my high estimate of his peerless position as an instructor of Medicine, for his sacred, progressing and ardent devotion to his exalted departments of Science of Physic and for his high culture, genial and gentlemanly bearing, to all his exceedingly appreciative students, this essay is most respectfully inscribed, by one of his many grateful and humble students,

The Author.

[illegible]
[illegible] and requisition
of this old and beloved institution
this Thesis has been prepared and
submitted. In the matter of selecting
the standard masters of Hist, Chemistry
West and S. Louis Smith have been
happily favored; also my choice
although has been given to the
lectures of Pres's. Hill and McCosh
and S. G. Allen. All things
being considered, as regards the
almost innumerable number
of subjects, my time and ability
to write, and the most desired head-
ers of the nations of country and
which I hope to practice, no subject
appeared to be of more absolute

# Cholera Infantum.

Is a Summer Complaint, peculiar to America and Eastern countries, but to no race, and occurring mostly during July and August, in infants under two years of age. With exceptional cases it is a disease of cities.

Some have so extended the term as to embrace a large part of the diarrhoeal maladies affecting infants in the Summer months. Some physicians apply it even to mild but protracted cases of ordinary non-inflammatory or inflammatory diarrhoea

occurring in this season. But Prof. Wm. T. Howard, of the University of Md., as good authority as is in this or any other country, very properly employs it, as it should, in my opinion, only be employed, to designate that form of infantile diarrhœa in which there are frequent watery stools, accompanied by vomiting, great elevation of temperature, and rapid and great emaciation.

Causes.— As above stated, cholera infantum prevails mainly in cities, occurring

from the month of May to October, corresponding in maximum severity and frequency with the degree of heat. When the temperature suddenly rises from 60° to 95° F., the disease is very likely to set in, at once, in its favored localities. But something more than temperature is concerned in its production. One chief cause doubtless, is habitation in localities with an atmosphere burdened with obnoxious vapors, especially those from vegetable and animal decay, or an atmosphere made impure by the too great abundance

of the inhabitants and by their own personal and domiciliary filthiness. Therefore, it is but common sense to conclude that cholera infantum is much more common near sewers, large uncleaned privies, in tenement houses, the smutty huts of the rural districts and parts of cities occupied by the poor, than in neater and less crowded streets and apartments. Another potent cause besides the elevation of temperature and insalubrious situations, co-operates

and probably in the majority of cases, namely, the use of improper food. Hence, with the greatest accuracy we say that, the depressing influences of atmospheric heat and unhealthy localities are the predisposing causes, while the use of improper food is the exciting cause. Those infants upon whom both causes are operative are certainly most subject to this malady, one of the most dangerous and dreaded diseases of our climate.

Bottle-fed infants in the city.

are especially liable to it, and those who subsist on food improperly and carelessly prepared. Acid and vegetable fruits, as currents, cranberries, unripe plums, cherries, etc., carelessly given to children, often develop the attack during the summer months. Though remarkable, it is a noticeable fact that, male infants are more frequently attacked than female infants. No cause has been assigned for this fact. Some infants have a hereditary pre-disposition to the disease. It occurs so frequently during

the first dental period that some have regarded dentition as a cause. But at this age the intestinal follicles are undergoing great functional activity and rapid development, and the singular liability to the disease at this age is rather attributable to this cause than to dentition.

Symptoms.- Although health previously good, cholera infantum sometimes sets in abruptly. Is frequently preceded by a premonitory stage of diarrhoea. Then the stools are thinner than normal

somewhat more frequent, but not alarming. The evacuations suddenly become more constant and watery, the parents are seized with dread and fright because of the rapid sinking and obviously perilous condition of the infant. It is not unknown for this condition of antecedent diarrhoea to have continued several weeks, attended with emaciation and associated with intestinal inflammation. This disease is noted by the discharges of thin stools, specified

by some watery, by others serous. Diarrhœa not previously existing, the first evacuations contain considerable faecal matter. Because of their thinness they often soak into the diaper, running over the nurse's lap or the bed and scarcely producing more stain than normal urine. Here the peculiar odor is musty and offensive, but not faecal. These serous evacuations often contain floating greenish flocculi, or shreds long and worm like. Sometimes colorless, varied much in frequency

and often running to thirty in twenty-four hours. The greenish appearance generally found in the stools may be produced in one of three ways, viz: By the action of the acids of the alimentary canal upon the bile, or by the action of the bile upon the blood exuded in the alimentary canal, or lastly, by the action of the atmosphere and urine upon the evacuations after standing for some time in the chamber.

Occurring simultaneously with these serous evacuations, or

soon after, is another symptom, namely, irritability of the stomach, which increases greatly the prostration and danger. But there is no true gastritis. Vomiting soon comes on. Whatever is swallowed is rejected immediately, or after a few minutes, or vomiting may not accompany the retching. Appetite soon fails and there is intense thirst.
If nursing, the infant seizes the breast to relieve the thirst; and especially, is cold water taken with extreme eagerness. The emesis is first simply water and food, then sero-sanguinous fluid, and finally of greenish color. At the early stage the tongue is

is moist and clean or covered with a light fur. Then it becomes dry and pasty. Respiration, usually normal, may be a little hurried, but the pulse is accelerated. The surface is warm, but its temperature is speedily reduced, while the skin is soft and without toxicity. There is probably no disease, except Scarlet Fever, in which the temperature of the blood runs so very high. The thermometer - in rectum - often rises above 105° and even 107½° is reported. Pulse runs even to 150.

There is no abdominal tenderness and no evidency of pain.

Infant is often restless at first, owing to its thirst, or the unpleas-

ant sensations which the sick only experience when the powers of life are rapidly failing. The scantiness of the urine, which is even suppressed in extreme cases, marks the gravity of the attack. Excluding Asiatic Cholera, and the most severe form of cholera morbus, the loss of strength and the emaciation are more rapid than in any other diarrhoeal malady. So marked, death like and positive are the changes that, the attendants scarcely recognize in the gloomy aspect of the infant any resemblance to the features which it exhibited a day or two before. With dejected and haggard countenance it withers in the jaws of death.

The eyes are sunken and blue beneath the lids, and the lips hang open, while the bony angles are quite prominent, the abdomen sunken, the skin, having lost its tone, is soft and in places lies in folds. As the fatal termination rapidly approaches, the infant remains quiet, flies alighting on its face not even disturbing it. Cool limbs and cheeks; the eyes bleared and pupils contracted; the urine becomes scanty or suppressed. There is marked acceleration of the respiration as death draws near; the pulse becomes more and more feeble, with clammy coldness of surface; stupor

follens, becoming more & more profound, and from which, the dying infant can not be aroused.

If the disease is aborted in the most favorable cases, of course, these fatal symptoms do not occur. The malady does not always terminate so speedily even though it may be utterly fatal.

Anatomy.— The intestinal follicles are abnormally developed. The mucus membrane of the intestines is vascular in patches and streaks and somewhat thickened and softened. The soli-

tary glands and patches of Peyer present an inflammatory hyperaemia, and occasionally certain of them are ulcerated. There is no special lesions of the brain or of its membranes. The cranial sinuses, veins and capillaries of the brain are congested and there is transudation of serum upon the surface of the brain or in the ventricles.

The liver preserves its integrity of normal function through the whole course of the disease - i.e. there is no perverted secretion of this gland, nor is it involved. The lungs remain healthy except they may take on hypostatic congestion.

Nature.- It is now a conceded fact that, cholera infantum is the most virulent inflammation to which infants are liable in our climate. especially when it is fully developed and enters its advanced stages. It is stated upon good authority that: "There is no other infantile malady in which there is uniformly so high a temperature, and under which patients sink more rapidly." The alvine discharges cause the rapid prostration and they consist, probably, in part, of the secretions from the intestinal tract and of the serum which has transuded from the capillaries of the alimentary canal.

Some writers have considered

chronic fever and cholera infantum identical and have also confounded the latter with Asiatic cholera; but the differential diagnosis between sunstroke and cholera infantum is very distinct, while all admit the perplexing diagnosis between Asiatic cholera & cholera infantum.

Between Sunstroke and cholera infantum there is most assuredly a resemblance as regards certain important symptoms. In both, the fever is very high, often observed to be 108°. Towards the termination of cholera infantum we find thin faecal vacuations, scanty urine, embarrassed respiration, contracted pupils, great

heat of the head and cerebral symptoms are common, and certainly, these are the prominent symptoms in sunstroke. But gastro-intestinal symptoms are the most prominent in cholera infantum. Nor does cholera infantum come on with a sudden stroke as does coup de soleil, but it comes on more gradual, though rapidly, while it frequently follows diarrhoea or some error of diet.

The infant is not drowsy but restless from thirst; while in sunstroke the stupor is excessive & alarming; also, it occurs only during the hours of exceeding heat, while cholera infantum may occur at any hour, or day in hot weather, if there

is existing a sufficient dietetic cause. Again, intestinal inflammation is rare in sunstroke, while it is the common and essential symptom in Cholera infantum. These differential facts are, without doubt, sufficient to place the non-identity of the two diseases beyond question.

In Asiatic Cholera we have the "Rice Water" stools and these are not present in Cholera infantum.

No uniform lesions are observed in any of the viscera, unless it be the organs of digestion; and such is found, I present, to be due to changes in the quantity and fluidity of the blood,

and in its circulation.
As the urine becomes scanty or suppressed, uraemia sets up and cerebral symptoms usually follow.
Diagnosis.— The symptoms are diagnostic and especially the character and frequency of the stools. As above stated, the stools are frequent, very often passed with considerable force. They are generally deficient in faecal matter, are thin, so as even to soak through the napkin as would urine. These symptoms, with thirst, vomiting rapid sinking and extreme emaciation serve to differentially diagnose cholera infantum from

other diarrhoeal maladies. In fact the diagnosis is perfectly easy and uncomplicated unless Asiatic Cholera be present. Then the differential diagnosis is difficult if not impossible.

Prognosis.- A favorable prognosis should never be given without qualification. Neglecting this precaution, many physicians have injured their reputations by prognosticating too hastily and carelessly, and very soon, painfully observe their favorable prognosis soon followed by sudden death. The disease is never free from danger. Is much prone to collapse, which soon sets in and winds up the hasty, sad scene.

The prognosis depends upon early and proper treatment. If the child has been weaned early, subsisting on poor food, impure air, receiving poor nourishment and insufficient and careless attention the prognosis is very grave and unfavorable.
Many children survive the attack, but a few large liquid stools at once, is an inauspicious omen. Though the urgent symptoms may be relieved, an ordinary intestinal inflammation may follow, which, in hot weather, is formidable and often fatal. The physician may confidently express the opinion that there is no present danger, when the stools become more consistent and less frequent, without the

occurrence of cerebral symptoms, while the limbs are warm and pulse still good. True cholera infantum is of short duration. It either ends fatally, or it begins soon to abate and ceases, or it continues as an entero-colitis. Collapse may result in death in twenty-four or forty-eight hours from the frequent stools, or not till after three or four days. The duration is various, generally very short.

Prof. Wm. T. Howard cites two cases:- The first he saw in June 1872 - child aged eighteen months - Died in eleven hours from time taken. - The second case he saw in June 1873 - child age ten months, healthy when taken. died in eighteen hours. His autopsy

failed to reveal any intestinal inflammation. And he is of the strong opinion that there is no intestinal inflammation, except in the advanced stage. I perfectly agree with him, for the stages run into each other so very rapidly that they are indistinguishable.

Treatment.- True cholera infantum does not call for the "expectant plan of treatment," but beyond most other diseases, it requires the employment of proper remedial measures, from the earliest possible moment, since the infant most rapidly sinks, if the evacuations are not arrested, or are rendered less

frequent and watery.

Regarding the disease as a violent intestinal inflammation - for most assuredly it emerges into this stage so hastily that the inflammatory and the so-called non-inflammatory stages are indistinguishable in a true type of the disease - there is no difficulty in determining the therapeutic indications.

To control the vomiting and diarrhoea, an infant between the ages of eight and twelve months, should take one teaspoonful of the following mixture every two or three hours:

(over)

℞

Tinct. Opii, gtts. xvj.
Spts. ammon. aromat., ℥ss.
Bismuth-subnitras., ʒij.
Syr. simplex.,
Aquae, āā, ℥ʒj. misce.

If only three or four months old, then take fifteen to twenty drops. If cerebral symptoms-rolling of the head, drowsiness &c-then do not add the opiate. At the same time a cataplasm of spice, ginger, brandy and water;-
Vel-mustard: Vel-powdered cloves and brandy should be applied over the chest. Some of high authority use the following to stop vomiting:
℞-Bismuth-subnitras. grs.v.
Deodorized Tinct. Opii, gtt. j. misce-

Take this every three hours till vomiting is controlled.

Vel. ℞.

Creosote. gtts. viij.

Gum Arabic (Pulv.). ʒj.

Rub together well, and add Aquae ℥j.

Take one drop at a time.

Vel. Subcarbonate Bismuth in doses from x to xxx grs.

Vel. Small doses of calomel with chalk, chloroform and hydrocyanic acid.

Vel. Calomel gr. j.

Saccharum Albi, gr. x.

M. viij powders. Take one every three hours till vomiting is arrested.

With reference to this symptom a careful regulation of the ingesta is requisite, and milk and lime water, given in small quan-

tity at a time, will often be retained when other articles of nutriment are rejected. After vomiting is stopped then the fever rises. The temperature even approaches that of Scarlet Fever. Then the child should be put into a bath of 102°, every two or three hours; be allowed to remain in for ten or fifteen minutes and then taken out and wrapped in sheets. Thus the fever is greatly reduced in the first twenty-four hours.
At the same time the sulphate of Quinine should be administered, to the amount of 1. gr. in twenty-four hours.
Death is sure to follow speadily if the temperature is not at once greatly reduced and then held in perfect abeyance.

As regards the diarrhœa, occasionally a laxative is indicated, and a few grains of Calomel or blue mass followed by the syrup of Rhubarb are admirably adapted for this purpose. Mercury is doubtless chiefly recommended because of the convenience of administration to children, and it is simply indicated in the vomiting and as an occasional laxative remedy.

Opium, in some form, with due circumspection, is to be employed. It is most efficient when given by enema, provided it be administered with perfect ease and retained. A very good combination would be a proper proportion of lime water, creosote, brandy and starch.

Vel.- Acetatis Plumbi. grj.
Deodorized Tinct. Opii. gtts, ij.
Ice water should be used freely.
To relieve the pain may inject hypodermically gtts ij of the Deodorized tinct. Opii in a little water. It is always better to give a good dose of opium at one time than small quantities at short intervals. If given by the mouth, the Dover's powder is an eligible preparation. If the dejections denote acidity, chalk, in powder or mixture, or lime water, is indicated. The mineral and vegetable astringents are indispensible. The most efficient mineral astringents are, bismuth, lead, and the persulphate of iron. Some of high repute have found nitrate of silver very useful in this disease.

Of the vegetable astringents, Krameria, tanic acid, geranium, kino, catechu, haematoxylon, rubus villosus, have all been used with satisfaction and we should not fail to use some or all of them.

Prof. S. C. Chew of the school of medicine of the University of Md. says: "If dentition is a cause producing the diarrhoea in cholera infantum, by setting up reflex action from irritation in the gums, Bromide of Potassium would be indicated, since this drug selives and controls nervous reflex action."

I think this theory is eminently worthy of fair trial-

Baltimore - Jan. 15th, 1875

Attention to diet and regimen is of prime importance; for without such attention many children die. Pure milk is the most appropriate article of food. By adding boiled flour or powdered biscuit, or some other farinaceous substance, it may be rendered more nutritious. The diet should be simple and nutritious, or bland and non-irritating. Rice or barley water, or arrow-root boiled in water, and similar drinks should constitute the main diet. When the inflammation has subsided, and prostration ensues, should be given Pure fresh milk and animal broths may then be allowed. The essence of meat, raw meat,

hashed meat, boiled meat, have all been used to great advantage. The only rule of limitation for the quantity given at a time of the different kinds of food, is to be graduated by the ability of the stomach to retain and digest it. Alcoholic stimulents are highly useful, in connection with diet. A few drops of brandy may be given occasionally with advantage. The need of a stimulent is shown frequently by the avidity with which children take it in these affections, & they should not be denied its use.

When partial recovery has been obtained then removal from the city, or to some healthy locality is absolutely necessary.

Because in these affections, hope of recovery need not be relinquished under an assemblage of symptoms which may seem to render the prognosis as unfavorable as possible. Patients sometimes recover after lingering for a long time on the verge of the grave. The reason is, the affections, when they prove fatal, do not necessarily involve incurable lesions of structure, but a fatal result is due to protracted irritation, exhaustion, and innutrition.

If living in the city and sickly, by all means the infant should be carried to the country early in the spring, and especially, if fed on artificial food, in an unhealthy

or filthy locality and its parents being in reduced circumstances. If such a child is not taken from the city to the seaside, or to some healthy locality in the country, it will in all probability be taken with Cholera infantum in the summer season.

Very Respectfully

Thos. J. Floyd

A Thesis
on
Pneumonia
presented to the Faculty of Physic
of the
University of Maryland
By
R. A. Norris
Candidate for Degree of
Doctor of Medicine
1878

# Pneumonia

Pneumonia is an inflammation involving some portion of the parenchyma of the lungs, often very extensive. There is distinguished by authors two different forms of this disease, one very prominent lobar and lobular. All termed by some authors croupous and catarrhal. Lobar pneumonia commences by a congestion of the small vessels investing the air cells of the lungs; after which there is an outpouring of serum the constituents of fibrin albumen and other corpuscular elements of the blood. The quantity increases until the air cells become filled and

the small bronchioli entering the cells
and in the ratio. lungs generally
speaking until the whole lobe has be-
come congested and air is no longer
allowed to penetrate the alveoli of
the lungs. This stage is known as
the stage of congestion or first
stage. This may last one week or
3 or more when the second stage
is reached or the stage of red-hepatization
in this we have the entire portion
of the lung consolidated;
the bulk and corpuscular elements
of the blood have so far fil-
led the air passages as to no lon-
ger admit the air to penetrate
after this resolution will follow
the third condition or stage of gray

solidification. If the disease terminate by resolution the serum and albuminous elements of the blood undergo inflammatory degeneration and in some mode absorbed but hardly expectorated. It may however terminate in gangrene and complete destruction of all the parts involved. In this case however it generally proves fatal

## Causation

Pneumonia is common to all ages. It is less frequent in extreme age and at children under five years of age. It is more common in men than women; this is perhaps on account of their more dissipating habits and greater exposure

to be conducted by the mother.
The disease is generally complicated
from to intercurrent and which
have long a very fatal complication. They
result from a thrombus formed
at the lung & extending from
an acute bronchitis or some inflam-
tion extending down the bronchial
tubes until it reaches the smaller
bronchia and air cells. It is also very
commonly developed in typhoid fever
and measles. Exposure to dust is
a very common cause. Pneumonia
is more common in winter and spring
months than in summer and fall.
It is also more severe in southern
than northern climates

# Prognosis

With the older practitioners pneumonia was considered very formidable and fatal disease. This opinion has been modified by the progress of the knowledge of the pathology of the disease. Bloodletting and calomel being their chief remedies, but with modern remedies. There is however no disease which the modern modes of treatment have more power over than pneumonia, which the mortality has been so largely reduced. The prognosis at the end of the second or third day should always be guarded. Those cases which have proved fatal are generally due to the complication of other disease; or cases in which inattention, want of proper

affected or it may be both lungs are involved at the same time. This I think is for the exception and not the rule.

## Diagnosis

There are many signs and symptoms by which the disease may be made out with great accuracy. If a patient be seized with a chill high fever and sharp pain in the side in the neighborhood of the nipple the cough and difficulty of respiration it would lead you to suspect pneumonia. But there are diseases which would simulate the diagnosis much more accurately. If this be the exhibit had heard over the chest on inspiration with slight dulness on percussion there it would check the

The diagnosis is announced in the first stage. There is pain of a throbbing character in the region of the liver. In the second stage the pain extends to or becomes with it a weight and fullness and tremulous sensation on pressing lower down, the so called kidneys can also be felt at this time. The fever usually becomes greater. If the temperature range above a hundred and four in the first stage it is considered an unfavorable sign. It generally lowers as from a hundred to a hundred and four in the first stage. If the case terminate by resolution there is generally a lowering of the temperature. In this stage we have the characteristic

not accord so the which is of a very
thick tumorous character which are
of pathognomonic of the disease of
this should be of a very dark charac
ter with a peculiar odor it is usually
known as plumbeolard sputa. Stenuica-
tis but there is a purgenous state
of the lungs and that has no sound
within the lung substance so that
case the disease generally ribous ratu
Lastly pneumonia may be complicat
ed with many other diseases of our
practice is the most common.
In fact we seldom have a pneumonia
without some degree of pleuritis

Treatment

There are few diseases in which so
many modes of treatment have been

adopted [illegible] treating with a con-
siderable degree of success. I think
however the older plan of bleeding
with large doses of calomel and tar
emetic was in many cases far more
injurious than beneficial. Admit-
ting however that these agents are
useful when used under some circu-
mstances if properly used. According
to the modern order more of tonics
and the remedies that are applicable
to one stage of the disease is not indi-
cated in the other. In the first stage
you should resort to bleeding unless
recent culturists you may cut short the
disease; stopping the inflammatory pro-
cess going on in the lungs. In this
way you relieve the congestion

simply by lessening the column of blood and diminishing it by the action of cathartics on the alimentary canal. In this way you may cut short the disease but I think it is a laborious plan of treatment; for if it should fail and consolidation occur it would have the patient worse off than before by wasting his vital powers; and the patient is less able to recover than if the hydrostatic remedies had been adopted. I think however there can be no uniform plan of treatment laid down that will apply in all cases; while in some bleeding would be beneficial in others it would be very injurious.

I would say however if I were called to attend a case of pneumonia in a stout ruddy plethoric man, if it were in the first stage with great pain over the part affected and high fever and raised pulse I should consider it good treatment to draw a limited amount of blood from the arm or neighboring by applying cups over chest. The use of sulphur ointment with the administration of internal sedatives are also very serviceable. Under these conditions I have found Veratrum Viride to allay inflammatory action and prevent effusion, the use of which I have frequently witnessed in consequence of its sedative and depressant effects. Tartar emetic and antimony and veratrum viride also may

be used in small doses but should not be pushed to the point of violent nausea. Blisters applied over the seat of the disease or stimulating liniments and warm fomentations have all been found very useful; some however prefer the application of cold which is said to be followed with marked relief. There are many cases in which bloodletting and cathartics are contraindicated. In some weak and debilitated constitutions I think the stimulating would be best from the onset of the disease. In the second stage of the disease the treatment is tonics and stimulating. Much attention should be paid to the diet: light nutricious food should be given. Lemonade is very beneficial but brandy the best of all diets is the free

administration of milk. A vegetable
tonic may also be given with good effect,
& such as infusion of quassia would
be best. Alcoholic stimulants may also
be very useful. But should the pain
be much aggravated by any medicine
indicated, I think the best plan in
the treatment of pneumonia is not
to attack the symptoms and but
them as they arise by proper remedies
as there are very many complications
which may arise, the different character
of which would necessarily call
for different remedial agents.

Inaugural Dissertation

Submitted to the
Board of Trustees
Regents & Faculty
of
Medicine
of the
University of Maryland,
for the Degree of
Doctor of Medicine
By
John F. Brown
of
Pennsylvania.
1875.

Richard Clay (
Graduate of Rush Medical
College in the University of
Maryland, This Essay is hereby
respectfully dedicated as a slight
token of his appreciation for his many
excellent qualities as a gentleman,
and his professional attainments
as a Physician, and as an
earnest of the regard of the
many acts of kindness manifested
by him toward the writer, during
his illness with Typhoid Fever in the
Maryland University Hospital
during the months of August
and September A.D. 1877

And to whose judicious
and well directed Operations
I am happy to attribute my speedy
and speedy recovery,
By his faithful Patient
The Author

Article E.

Classification to indicate the
[illegible] and [illegible] of the
[illegible] [illegible] [illegible] to
[illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible]

excellence at all times and in every
all places on the inhabitable globe,
and because it is a disease of great
malignancy, and one which
is very likely to prove fatal to
constitutions of a delicate
cast, I subjoin the following pages
I have relied somewhat on the hints
I have obtained by limited experience
in the treatment of this disease, but
mainly on what I gained pondering
over the volumes of Watson, Hunt
& Stanford, which I have learned
to prize, recently both in the halls of our
alma-mater, & the wards of the Hospital
in her actions which you will find in
the following pages I have endeavored to
be a faithful chronicler & critic of

Typhoid Fever.

Synonyms:- Typhoid Fever.- Nervous fever.- Continued fever.- Intermittent fever.- Abdominal Typhus.- Mucous fever.- &c.

Definition: The term Typhoid was introduced by Louis, and signifies typhus like. Some writers object to the term Typhoid as it expresses only a condition common to many other diseases. Dr. J. M. Wood has suggested the term enteric, meaning the communicated disease in contrast with abdominal typhus. Though the nomenclature of this disease has varied much, some time elapsing before it was generally adopted, many recent writers have adopted the

[illegible]

[illegible]

[illegible] "Optical Sense.—A

[illegible]

[illegible]

[illegible]

[illegible]

[illegible] "

[illegible]

[illegible]

[illegible]

[illegible]

[illegible] fifteen and twenty feet.

[illegible] is observed

to occur but rarely in infants.
Still, there is reason to believe that
many cases occurring in the first
years of life are not properly de-
nominated typhoid, being distinguished
by acute and protracted enteric
colitis.

Pathological Characters: No ul-
ceration has been discovered in
the blood peculiar to typhoid fever,
fibrine is diminished in amount
as in most essential fevers, and
if the fever continues long, as at
California, the serum contains
the amount of albumen and
blood corpuscles is diminished.
But through medicine and the
correct application of the laws

Peculiar to this disease that there is reason to believe that in it exists the essential pathology of the disease. We claim it is that this is the cause in thousands, if not hundreds, and the impression is irremovable that the pathological condition giving rise to the symptoms referable to the nervous system is due to a form of blood poisoning, cerebral anæmia, or toxæmia. Here we adopt the language of Shakspeare:

The life of all his blood

It touched corrupting, and his pure house
Wide blown self-love helped to desolate
Do to by the ill concomitants that it knows
Instantly the spirit of life.

No constant change [illegible]
[illegible] in the brain or skull cord,
though it is not uncommon to find
[illegible] as the cerebral congestion, to
[illegible] with serous effusion into
the ventricles of the brain, or in the
subarachnoid space. Post mortem
of the subject have revealed the
the presence of a phosphorescence found
in the ventricles have been
[illegible] with the superficial of the
disease. [illegible] the [illegible]
[illegible]. In the respiratory system
the final [illegible] changes, in the
[illegible] cases of hypostatic [illegible] of
[illegible] pneumonia [illegible],
[illegible] [illegible] of the lobes
[illegible] [illegible] each [illegible].

But that is very common [illegible]
[illegible] of [illegible]
and that particularly is usual
a chronic change in the lungs
is Bronchitis, and nearly always
to [illegible] thickening and [illegible]
Ulceration of the mucous membrane
lining the bronchial tubes, and
which is also accompanied with [illegible]
secretion. Other diseases and conditions
very to found in the [illegible] [illegible]
consumption, but that is not so
[illegible] those first enumerated.
Such conditions as emphysema, for
instance, are in a great measure
[illegible] mechanically, [illegible]
[illegible] during the [illegible] of the
patients life. [illegible] [illegible]

in the digestive system are of two
interests. They are the entire, and
are found in the Pancreas and
mucous, and in the salivary
glands & sometimes the mucous
membrane of the small intestine
is found injected, and by the first
two the fluids above named are
finally emptied, those in the vicinity
of the ileo-cecal being first affected.
When these glands enlarge they pre-
-sent a regular transparent surface,
and the inflammation, for so
it is, extends, they become tender
and at a later period the mucous
membrane covering them slough
away, followed by disease of the
[illegible], and [illegible]

[illegible] ulcers in the side of [illegible]
glands and deep or internal [illegible]
in the side of the axillary glands,
[illegible]
these glands is rarely confined
[illegible] the commencement of the
[illegible]
[illegible]
[illegible]
[illegible] This successive ulceration
[illegible]
[illegible] is a distinctive feature of
[illegible] fever. After ulceration of
[illegible]
[illegible]
[illegible] is a feature of the disease
[illegible]

[illegible]

[illegible] and this explains to a great degree, the fact that under [illegible] ulceration occurs very [illegible] times of typhoid fever affecting children. The alterations occurring in the intestinal canal, as above enumerated, afford a reasonable explanation [illegible] of the symptoms of this disease; more particularly [illegible] reference to the digestive system. Thus, they account for the [illegible] variable diarrhoea, and [illegible] tormina account for the [illegible] tenderness

[illegible] occurs in [illegible]
[illegible] cases. The foregoing intestinal
[illegible] are characteristic of dysentery
[illegible] and are always present in
[illegible] greater or less degree. They may [illegible]
[illegible] in [illegible] [illegible] they
may lead to death by producing
[illegible] [illegible] they may
produce extensive hemorrhage and
[illegible] [illegible] large mesenteric blood vessels, or,
as perhaps more frequently happens,
the ulcers of the [illegible] I have written
may [illegible] the muscular coats of the intestine
and produce rupture or perforation
[illegible] [illegible] [illegible]
[illegible] and which latter is usually

[illegible] men, and, as I have said, [illegible]
most never happens in children.
Tonitis from perforation is al-
[illegible] certainly rare. In the adult
the spleen is sometimes [illegible]
[illegible] and softened and
[illegible] dark red appearance. Enlargement
the spleen possesses considerable
[illegible] value, especially in the
[illegible] obscure cases of children
[illegible]
[illegible] chronic entero-colitis in which
[illegible] almost similar [illegible]
[illegible] lesions may occur, but in
which we never find splenic
[illegible]

[illegible]ations in its attack [illegible]
[illegible] premonitory symptoms usually
[illegible] sudden. In most cases
[illegible] the [illegible]
[illegible] of its onset, — so imperceptible
[illegible] the disease comes on. So
[illegible] think that as a rule the
[illegible] may be considered estab-
lished when the patient, — no
[illegible] incredulous, [illegible]
[illegible]. But [illegible] a
[illegible] time to consider the
[illegible] as established would be
[illegible] time when the patient [illegible]
the more or less pronounced [illegible]
[illegible] ushers in the disease.

Malaria has been the prominent cause of Caries in duration from five to ten days, — the mean duration being five days. During this stage occur the following symptoms:- The Patient complains of a peculiar burning chilly sensations which are usually relieved by perspiration. The tongue is sensibly pressed to be hot. There is some albuminuria, languor, and general uneasiness, leaving the patient feverish irritable and complains of dullness of intellect. Nausea not uncommon, followed by rigid vomiting. Anorexia is a prominent

[illegible] tongue is furred, Epistaxis usually occurs and there is a slight disposition to diarrhoea, or if a purgative be given [illegible] is time, hypercathársis [illegible]. There is more or less pain in the loins and in the limbs, [illegible] pulse, during this stage we also find slight acceleration of pulse, but increased temperature in the body. These symptoms are [illegible], [illegible] increased evil, [illegible], [illegible] transformed into [illegible]. It is now that [illegible] exhibited the ordinary phenomena [illegible], the symptoms [illegible] increased as [illegible]

Stools are of a pale brownish white
colour except Epistaxis and diarrhoea
which may be expected in a slight
degree of probability resembling or
[illegible] Other Sec. Stools [illegible]
[illegible] are [illegible]
prominent. There is more or less [illegible]
[illegible] discoloration [illegible] the
[illegible], the skin, [illegible] extremities of the
face, which is [illegible] generally assumes a Ethiopic tinge or
Muskey hue and the countenance
presents a listless expression, or in
more severe cases an appearance
of stupidity. If a circumscribed
redness of the cheeks is observed
it may be inferred that pneumonitis
exists as a complication.

... Pulmonary Congestion, Blood burning
on the face and hands, but extend-
ing to some degree all over the body
in diffuse redness & tingling
sensations and sudden variations
in the peripheral arteries
through the cross-relations of nerves
so in proportion the symptoms most
prevalent, and which are peculiar
to the circulation are, acceleration
of the pulse, varying at different
periods of the disease and in ac-
cordance with the severity of the
symptoms. Present the pulse the
greater the inflammation, the more
severe the disease. When the pulse
rises to 120 per minute, or still higher
the disease assumes a more fatal type.

as being very at 60, powerful.
When, in the course of the disease has
a sudden and marked in-
crease of the frequency of the pulse
(as may occur if is being prematurely
of the occurrence of pneumonia,
hydrothorax, or some other
event. There are great variations
in the frequency of the pulse in
different cases. It occurs, however,
in exceptional cases, that it
does not throughout the whole
course of the disease, remain
at 60. Sometimes the pulse ranges
higher in the morning and lower
at night, but no regular exacerbations
of pulse are to be observed. On the
other hand, if the frequency of

Expense increased to 120,000
minute its power is greatly dimin-
ished, and great increase in fre-
quency, with great lessening in
force, denotes the approach of a
quickening, which invariably
is most often the mode of death in
typhoid fever. The thermometer,
a little instrument which every fam-
ily and every practitioner is bound
to carry with them at all times
will aid us incalculably in as-
certaining the variations of the tem-
perature of the body in this disease,
which, I need hardly add is of the
utmost importance for us to know.
The thermometer is placed in the
axilla or groin the tongue is not

[illegible] the [illegible] of the
[illegible] the [illegible] of the [illegible]
[illegible] to 103° Fah. A higher degree of the
[illegible] from this, [illegible] the [illegible]
[illegible] pure, and if it be [illegible]
[illegible] to a height of 106° or 110° [illegible]
[illegible] the [illegible] of [illegible]
[illegible] the [illegible] of the
[illegible] temperature is evidence of [illegible]
[illegible], but a [illegible] [illegible]
considerable [illegible] of [illegible] Duration
is not so [illegible] [illegible] of the
[illegible] [illegible] [illegible]
[illegible] the [illegible]. From the [illegible]
[illegible] after the [illegible] [illegible]
[illegible] the [illegible], in the [illegible]
[illegible], there appears upon the

[illegible] characteristic eruption. It consists of rose colored spots, (so named by Louis). They are isolated nodules appearing [illegible] [illegible] and abdomen, but are [illegible] found on the limbs. [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] momentarily disappears on pressure. They are not very numerous and occur [illegible] irregularly, [illegible] less frequent in children than in adults. Considerable [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]

We can not overvalue the value to this Eruption alone, as furnishing us a diagnostic point; since we know that it occurs in various affections in which there is considerable perspiration. Taken in the aggregate with the symptoms enumerated; and with others yet to be considered it may be regarded as a pathognomonic point in rheumatism. The attack is usually ushered in by a chill, followed by more or less perspiration when the fever increases. During the first week the patient complains of considerable stiffness. It is not always

[illegible] appearance, rarely of much intensity and is but little [illegible] of [illegible] [illegible] the second week. [illegible] occurs, in most cases, [illegible] the second week, but sometimes it manifests itself [illegible] the first week, or it may not occur until a later period. The rash is usually very prominent sometimes covering quite the intensity of the disease. Sometimes it is slight and in most cases perhaps of a papular kind. It usually first manifests itself on the [illegible] towards the neck, but may come to [illegible] [illegible] and spread over the whole surface of the [illegible]

[illegible] this, [illegible] makes [illegible] which are [illegible] delirium [illegible] delirium assumes a violent form requiring restraint, as when the patient shouts, makes persistent efforts to get out of bed &c, it is to be regarded as having a very [illegible] bearing on the prognosis of the case, [illegible] it extremely grave. In [illegible] the delirium was extremely violent. The patient, a woman 37 years of age, — a [illegible] by occupation, [illegible] in the very worst of the [illegible] violent delirium [illegible]

forcibly forced [illegible]
as deemed advisable to secure
[illegible] fire by means of ropes to
prevent their [illegible]
[illegible] disposing, but [illegible]
the patient by exhaustion and
fever, muttering, [illegible]
[illegible] delirium, then again muttering
[illegible] [illegible]
[illegible] finally, a state of [illegible]
[illegible] and the patient died
on the 13th day from the [illegible]
manifestations of the disease. This
was a hardened hospital [illegible]
typhoid fever, and occurred in
[illegible] [illegible]
[illegible] epidemic [illegible] [illegible]
[illegible] in two other [illegible] [illegible]

the disease previously and been
at considerable in the time before
the patient under consideration
or after the case referred to, died.
As I have already intimated, the
delirium of typhoid fever is by
most physicians considered, not
to be referable to any encephalitic
inflammation, but, to the morbid
condition of the blood. This prev-
alent idea as to the cause of the
delirium, I think, may be safely
accepted as being rational and
in a very high degree of probability
correct. In typhoid fever the
disease of the spinal column effected
by the blood is from a sudden,
and, in most cases, acute,

and two exceptional cases of [illegible]
Encephalitis acute. Coma [illegible] to a greater or less extent exists, and for the time of [illegible] [illegible] (Pneumonia [illegible]) Pneumonia and other tissue [illegible] [illegible] is [illegible]. Nevertheless [illegible] [illegible] [illegible]

Dyslexia first notice from the prominent Symptoms. The tongue is usually at first furred, but afterwards becomes coated with a thick dark brown coating. It may also present a peculiar appearance of the muscular exposition of its coating. Simple dyslexia often attended by redness of the tongue is often observed, so also at the edges of the teeth, usually during the second stage, and sometimes in the gums in very severe cases. Coming is sometimes a troublesome symptom. These are the diagnostic Symptoms, and one present in a great majority cases is sufficient, varying in

[illegible]

that for intestinal lesions, [illegible]

motions are of an ochre color and

if they occur involuntarily also

indicate great severity of disease.

Some intestinal ulcers may even

[illegible] from the powers of

the disease often terminates fatally.

Upon palpation over the abdomen

it usually appears prominent upon

and in nearly every case there is

tenderness in the right iliac region

sometimes extending over the entire

abdomen. This tenderness is some-

times very slight.

[illegible]

[illegible] is frequently

[illegible]

Late in the disease perforati[illegible]

[illegible] intestine and resulting peritonitis may occur and is almost invariably fatal. Pain, tenderness and [illegible] are the chief symptoms, otherwise it is rather [illegible]. Pain is seldom recorded as a prominent symptom in these cases describing the tumour as [illegible]. In the early part of the disease the patient is [illegible] and [illegible]. As the patient recovers convalescent it is observed that [illegible] fails. The tumour becomes distended [illegible] the abdomen [illegible] it must be treated by the use of the [illegible], and the necessity of removing the tumor [illegible]

[illegible] Epidemicity [illegible]
[illegible] Epidemically. It has been
asserted [illegible] prevailing [illegible]
[illegible] found it, but this probably
[illegible] in those districts where
malaria is most abundant typhoid
[illegible] is [illegible] [illegible]
[illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible]
[illegible] other seasons of the year, [illegible]
[illegible] most frequently in the month
of September and October. Dr Flint
in his work on the practice of Medicine
states that a warm dry season
[illegible] the occurrence of the disease
[illegible]

[illegible] in early adult age is a frequent
[illegible] cause. It is infrequent in
[illegible] (though not as rare as was
[illegible] generally supposed) and [illegible]
in children, and rarely occurs
in those persons who live a little
[illegible] the age of puberty. [illegible]
[illegible] or either after the period of
adolescence has been passed, there
[illegible] frequently disappears
[illegible] rarely [illegible] in those of rarely
[illegible] years of age, and hence the
[illegible] of disease [illegible] in the
[illegible] is [illegible] and [illegible]. It is a [illegible]
[illegible] interest to know
that these [illegible] are [illegible]
[illegible] in [illegible] [illegible]
[illegible] [illegible] [illegible]

[illegible] exposure to a foul atmosphere, whatever its nature or source, are [illegible] [illegible] that the infectious distinguishing [illegible] [illegible] patient shall be immediately [illegible] [illegible] the ground. Copperas, chloride of lime or some similar disinfectant should be used in the sick room, [illegible] also be [illegible] [illegible] The distinctive [illegible] the following: [illegible] gradual [illegible] the usual constant

[illegible] been [illegible] [illegible] [illegible]
[illegible], the absence of remissions
[illegible] [illegible], tenderness in the right
iliac region and [illegible] [illegible]
[illegible] dysentery and the characteristic
[illegible] [illegible]. The fever
which is most frequently [illegible],
the age of the patient and the
[illegible] [illegible] of the disease
[illegible] [illegible], are also, [illegible]
[illegible] [illegible] [illegible]. As
[illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible]
[illegible] [

is necessary to arrive at a positive
diagnosis. After some preliminary
examination we require to be distinguished
from this disease, that we may
easily appreciate ourselves with the
symptoms and features which
are distinctive of it, and prin-
cipally attention to the characteristic
symptoms of the disease, for the
elimination will be comparatively
easy. Where the case is not clear
marked, it is sometimes, very
difficult and requires all our
resources. For it is only an
skilled and careful observer
rarely fails in arriving at a proper
and correct diagnosis. It is
not to be said that [illegible]

[illegible]

years. The Eruption of Typhoid fever,
which has already been described,
differs widely from the [illegible]
[illegible], in the latter affection it is,
as we saw, a disease, which is
determined by the presence, there of
[illegible] and [illegible] and
[illegible] from a distinct source
[illegible] or [illegible]. Typhoid fever is
[illegible] Contagious Exanthemata, differs
from them, as we have seen, in the
[illegible] of a peculiar liability being
[illegible] to, this is the
Contagion in Typhoid fever, cannot
[illegible] in Typhus fever, Typhoid
[illegible] Epidemic Typhus
[illegible] Alone as an Epidemic

[illegible] peculiar intestinal worms [illegible]
tainting of the former are absent
in the latter disease. Typhus fever
is also accompanied by a peculiar
ammoniacal odour. These distinctive
features will the differential
diagnosis will be easy.

Prognosis. Many of the varieties
of the various symptoms of typhoid
fever will have on the prognosis.
[illegible] prior to the patient's
age, clinical history, etc., there are
[illegible] to be taken into account in this
subject. If there is no disease
attended with [illegible] danger, the
[illegible] the prognosis can
[illegible]

[illegible] from danger, and against the worst
[illegible] cases do not always prove
fatal, and no symptom however
[illegible] makes death inevitable.
At different periods, and in different
constitutions, the same disease
demands different treatment.
No death-bed is alike. Under
the strictest regularity of
[illegible] there are
[illegible] which
[illegible] is
[illegible] and
[illegible] which
[illegible] constitution. Consultations of
any kind tend to [illegible]
[illegible]. Common [illegible]

[illegible] Inflammation, Violent and persistent vomiting, [illegible] and [illegible] and [illegible] of the body above 105° for 12 hours, [illegible] temperature as 97° [illegible] [illegible] coma, and other aggravation of symptoms. Should [illegible] and [illegible] perforation of intestine and be starting [illegible] death is almost certain to follow. Hemorrhage from the bowels is [illegible] unfavourable [illegible]. [illegible] should be [illegible] [illegible] [illegible]

[illegible]

[illegible]

[illegible]

[illegible] a [illegible] of the [illegible] solution
and in lowering the temperature from
either [illegible] or [illegible] [illegible]
and therefore other [illegible] which
[illegible] the [illegible] better, If [illegible]
might be employed [illegible] [illegible]
[illegible] in the distribution and in
some cases [illegible] general [illegible]
the mineral waters have been employed
employed in the treatment of [illegible]
[illegible] and their [illegible] to their
free and inoffensive [illegible] [illegible]
often disturb the stomach and do not
[illegible] [illegible] on the intestinal
lesions. The water and [illegible]
[illegible] [illegible] [illegible]
is what has [illegible] the [illegible]
[illegible] [illegible] [illegible] [illegible]

[illegible]
[illegible] arise in the course of the disease.
If the bowels are bound or in constipation
exists [illegible] [illegible]
[illegible] of the sulphate of Magnesia
[illegible] the tendency to the
disease must be borne in mind and
[illegible] [illegible]
[illegible] If the fever rises [illegible]
and should be given at intervals but if
[illegible] [illegible] exist,
Ether, Opium, Dover's powder, Camphor
Potash, or Hydrate of Chloral may
be given, When diarrhoea comes on
Tr. Opium and Tincture of Cork & Tinctura
Opium [illegible] [illegible]
[illegible] [illegible]
[illegible] [illegible]

making applications of ice water,
[illegible] [illegible] [illegible] [illegible]
[illegible] that is still better, the ice cap may
be employed. Sometimes in spite
of persistent and troublesome symptoms
relief may be had by giving the patient
[illegible] in a warm bath, or the
[illegible] bath, or applications, or
small doses of tartar emetic may be
given [illegible] and is also highly
recommended by some practitioners,
[illegible] [illegible] [illegible] [illegible]
[illegible] in consequence of its emetic
effects, [illegible] [illegible] [illegible]
and also [illegible] of the
[illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible]
[illegible] the abdomen. When the [illegible]

[illegible] [illegible] [illegible]
[illegible] [illegible] [illegible]
[illegible] [illegible] [illegible]
in the intestinal tract, and the Oil
of Turpentine should at once be given
in small doses with some castor
oil, some other laxative or anodyne.
For children from
5 to 10 drops and for adults 10 to
20 drops, repeated every 2 or 3 hours
according to the severity of the case.
The Oil of Turpentine was first recom-
mended as an astringent and
efficient remedy in Cases of hæmor-
rhage, where it is known as Gum
Gum enumerated Dr. Sent Thomson,
in Phil. Jour. B. Med. Vol. Prem.
Since from abundantly Confir-

and the practitioner justifies his
selection not simply if in the treat-
ment of this disease unless he can
subtract a medicine equally good or
better. And while admitting its
great efficacy in threatened perfo-
ration of the intestine, he may from
grounds it as being dangerous when
in intestinal hemorrhage, which may
occur in the most mild cases of typhoid
fever. Substantial reasons are of no
amount in bearing in the treatment
of typhoid fever, and there is little
hope of great benefit from
the indiscriminate employment of alcohol.
Alcohol acts as an article of food in
such patients, and as this is not
powers are weak and utterly inadequate

[illegible] even the most digestible kind of food has recourse to the use of alcohol knowing that it fully answers the purpose of food and can be readily absorbed by the system without taxing the exhausted digestive apparatus. Friends have the use of alcohol much better than persons in health and as much as I [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] recommend its employment in [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]

in 1869. The anti-zymotic properties of alcohol renders it also an antiseptic remedy in the treatment of typhoid fever. For the same reason that it lessens the temperature of the body and thus lessens the tendency to fever. It frequent, full and compressible pulse with sensations of the first sound of the heart indicates and the administration of alcohol. Upon the administration of stimulants the skin becomes red and hot, the tongue moist, the temperature and the pulse strong and frequent. Its beneficial action may continue its use, should it be avoid however that it is a

[illegible] a [illegible]
[illegible] blood has been taken, [illegible]
its further administration. Some
practitioners prefer to give it
in the form of tonic, which they
is about the best, tends to have almost
as much disorder when it has
to be substituted. Cost [illegible] as it
contains tannin and somewhat
checks a profuse and exhausting
diarrhoea. At some as the patient
becomes convalescent and should
be given in larger quantities, but
often the appetite of the patient
becomes voracious and great care
is necessary that the patient takes
improper quantities or indigestible
food which would be injurious

with disastrous consequences to the patient. The patient should at first be given buttermilk or its best substitutes and easily digestible, cooked farinaceous, starchy, milk food, or broth, tea, etc. Any excesses from these must often be followed by a relapse. If the patient grows strong, fresh fish, poultry, broiled eggs, &c, during the course of the disease the patients should be allowed to eat small quantities of bread. The patient must not expect to be immediately restored to normal exercise after convalescence. Heat may linger the headache

[illegible] suspended by the retention of urine, the catheter must at once be used. If bed sores occur the patient must be sponged and alcohol, or oil of turpentine with bit of camphor applied to the sores. If blisters appear they should not be allowed to break the skin. If vomitus superveneth opium must be given internally and poultices be applied to the abdomen.

On the subsidence of the inflammatory hypothesis fever reasserts itself in what we have already termed the secondary or third stage, and leading the system astray. If complications ar[illegible]

treat them accordingly. We at all times and in all stages of the disease will give the attention to the comfort of our patient and provide for him such proper food, and be guided as to our treatment shall act most for the greatly and to find comfort in his safe and speedy recovery.

Students Building
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Pennsylvania

Thesis

Respectfully submitted to the
Medical Faculty of the
University of Maryland
for the
Degree of Doctor of Medicine
by
Dimmitt Norris
of
Washington Territory.
A.D. 1878.

Gentlemen:

Of at least a large portion by those who offer for the degree of Doctor of Medicine select some subject directly connected with Medical science. I have thought in the path of my predecessors and therefore endeavor to do as well as my slender abilities will permit. I am also cognizant of the fact how imperfect must needs be my efforts as I have no storehouse of practical experience to resort to, but transmit as best I can the facts deduced from lecture rooms and text books. In consideration of these facts I respectfully ask your indulgence.

J. G. Morris.

# Scarlatina

There is perhaps no acute disease of all the diseases incident to childhood which presents greater variety of aspects than Scarlatina. It appears under every grade of violence from the simplest and least dangerous to the most severe and malignant forms of disease. It was as was distinguished from Infantile three hundred years ago by Sydenham as Scarlatina. It was however constantly confounded with Infantile until the end of the last century when its distinctive characters were more fully pointed out by Dutton. It appears to have multiplied its victims and was epidemic

Sydenham as the more severe of a disease much less to be feared than measles. The fatal results ascribed to Sydenham must therefore have been of a very mild kind. It is a disease which prevails at different periods. It begins of late years in the early part of the present century in the medical lectures on commencing great ravages in Dublin. Its type was most formidable ending in death as early as the second day. He found again that scarlatina epidemic occurred from 1804 to 1831 but assumed a milder character during the latter portion of the period. Among the mortality at the diff-

and periods many were led to
believe that the Board of Health
instead of saving the former was
an injury to the cause and was
to believe that the diminished mor-
tality was entirely due to the out-
of power of the disease. It
was thought on the 20th of June
that day and scarlatina was
spoted as for example of the ef-
ficacy of the new Board. But
on a fair trial it seemed they
did not more successful in 1864
5 than were their predecessors
in 1861. It would appear for
example as we to find that
what course of results have
been proper to have pursued

in regard to Lockwood, but I think it would be an excellent and more modern idea to say that Lockwood should not have been so [illegible] to be so [illegible] at length, but [illegible] to the faithful character and [illegible] which he [illegible] [illegible] of which this house was [illegible] [illegible] authors have [illegible] [illegible] Lockwood [illegible] Simplicity, Constancy, and Malignant. [illegible] and Farthing describe two the [illegible] and [illegible]. Mingo [illegible] the wild and [illegible] but most [illegible] [illegible] so more.

Analysis of Characters

The central figure of this drama is the mother or Thrown-

[illegible] morbid condition of the mucous membranes of the stomach and bowels similar in appearance to those found on the outward surface. A careful microscopical investigation was by Dr. Lowell. Based on a certain quantity of insoluble charge similar to that being ejected by the patient was undergoing in the stomach tubes and mucous follicles of the colon. Numerous cysts of hydatids in the stomach and intestines and more disgorgement of epithelium to place. But on careful examination of body five cases that list of different diseases was made and similar appearances were wanting save one

and the case was one of [illegible]

## Clinical History

[illegible]

[illegible]

[illegible] For some cases we have the [illegible]

[illegible] leaving the intermediate portions [illegible]

[illegible]

[illegible]

joints. I saw it accordingly
marked in a case that came
under my observation last month in Glas-
gow. The position was that of
inguina when the diffusion of
light was found to be so strong
of boiling water in the joint
[illegible] and the unusually [illegible]
[illegible] were still prominent.
On the fourth to the sixth day
the condition and [illegible] were [illegible]
[illegible] at the [illegible] state of the
[illegible] [illegible] [illegible]
[illegible] [illegible] [illegible]
[illegible] [illegible] [illegible]
[illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] the
end of the seventh day. It

[illegible]

[illegible] brick dust sediment on cooling and in some cases we [illegible] desquamation is like scales or [illegible] which begin to [illegible] to appear. The duration of the disease is [illegible] [illegible] days but [illegible]

filled, can be looked for, exceptional
cases excepted, for some weeks. The
foregoing is simply the usual form
of smallpox, presented of the milder forms of
smallpox without complications. The
cases as ordinarily found in practice
will vary in intensity some presen-
ting a mild form while other
forms will be violent from the
onset followed by delirium coma and
occasionally convulsions. The pulse
will range from 120 to 160 beats per
minute. If the eruption is slow in
making its appearance we may augur
ill of the case but if the eruption
appears early it will probably as-
sume a milder form. Oedema

may be the result of a passing
illness and in a certain proportion
of cases disease of the kidneys an
important complication. Albuminuria
manifests itself either during the en-
suing or desquamative stage in a
proportion of one to four of the cases
and granular casts will be found
with or without albuminuria.
Hence the importance of examining
the urine not only for the purpose
of detecting albumen but also for
casts and urea. If the throat is
examined into you will not find
so much swelling of the fauces as
in common Quinsy but a diffused

redness excluding a large part of the palate. Often a short period you will find whitish exudations or gray crusts forming upon the tonsils and uvula & you have a superficial ulceration left by the separation of these crusts. These acid matters coming from the ulcerated surfaces extends to the posterior nares and involves the Schnederian membrane of the nose thus causing an excoriation of the alae nasi and upper lip. These same acid matters may affect the alimentary canal in the same manner thus giving rise to diarrhoea. There is still another condition very common with those

to cat aquatics and that is an inflammation of the Eustachian tube, a distension of the tympanum itself, and of the small bones contained therein. The occasional sequelae of this disease are Phlegmonous inflammation of the cellular tissue and abscess.

## Causation

Scarlatina arises from a specific contagious miasma which likewise other febrile contagions appears to be much under the influence of certain atmospheric temperaments as is manifest from its occasional epidemic prevalence as well as from the various grades of violence which it has been known to assume

a different opinion. "Dr. Hughes would say he had seen it occur in the cases of Spinners, Nurses, and others." It is a well known fact that persons have been attacked on returning to houses in which cases have occurred for months and months after, and yet no other great effort had been made to remove the miasm. Some authors assert that they never have witnessed a second attack of this disease and doubt the possibility of this occurrence but equally indefinitely authority have asserted the fact and that it has occurred though not a frequently as the other.

# Diagnosis.

The only phases with which the
blind is unable to deal are
the tissues and substances of
the two milder forms the disease is
rarely attended with any difficul-
ty. Nevertheless the following con-
siderations will almost always
enable a physician to distinguish
between the two above mentioned
diseases and condition, in ne-
cessitating the further operative
course not until the light phe-
nomena on Fundus the hemorrhages
appear until the third day and
perhaps not until the fifth day
of the operative condition is
passed in the entire

The pulse varies to 40 per min and the temperature from 102 to 97. There is little doubt the disease is scorbutic.

f)

Diagnosis.

The prognosis in such a case must of course be always uncertain before, as on the first of the disease not either it be of a mild or severe character. If there is great amount of temperature, coordinated on the first days a rapid rise of temperature the hasty color of expiration and urine are unfavorable symptoms. The prognosis is also unfavorable on account the blood affection is usually severe. Hence considerable

involve imminent danger. Regular
attendance of the family physician
is advisable for the purpose of the
pulse and frequent examination
of the entire abdomen favorable
termination of the disease.

Treatment

Consists in a mild purge and
with a complicated cases the
bowels through the feeding of the
different forms of treatment and
their value it must be considered
that some cases are so virulent
that no treatment will save the
patient that other cases are
so mild that they will recover
if left alone. Now we are here

immediately upon first the disease could be cut short but perhaps I can recommend the usual treatment of disease due to contact through a foetid [illegible] temperature, or bad or foetid food or drinking water the fatality of the disease. If the case be a bad one [illegible] treatment is often needed, but if a group should prove a bad one causes should be adopted. The fumes of the skin should be [illegible] and [illegible] the body in the first week might be [illegible]. As Lime-Chloride Crystals [illegible] into [illegible] the bowels should be kept open by [illegible], the patient should

[illegible] exposure to the cold. In the
[illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible] [illegible]
[illegible] a cough. The unpleasant sensation
[illegible] the throat. [illegible]
[illegible] generally [illegible] to [illegible]
[illegible] [illegible] to some extent the [illegible]
[illegible] the surface and throat. [illegible]
[illegible] fresh [illegible] [illegible]
[illegible] such as [illegible] [illegible]
[illegible] pleasant substitute [illegible]
[illegible] in [illegible]. A [illegible] of [illegible]
[illegible] be [illegible] [illegible] [illegible]
[illegible] in this way for [illegible]
[illegible] [illegible] [illegible] [illegible] by [illegible]
[illegible] of [illegible] [illegible].

To
The Faculty
of
Physic.

Science
and
The Successful Physician.

by
Mr Will C Batter.

1877-78

# Science and the Successful Physician.

An inaugural dissertation submitted to the examination and criticism of the honorable faculty and regents of the University of Maryland, for the degree of Doctor of Medicine, by Mr. W. C. Butler of Middletown Md.

# Dedication.

To the Medical Professors of the University of MD, this humble production is respectfully dedicated as an evidence of my gratitude for their instructions imparted, and the esteem which I entertain for their admirable qualities as men, and their energies in carrying to its acme the noble work in which we have now engaged.

For our departed President - upon his green and quiet grave do I lay this tender flower as an emblem of love and respect, and a tribute, though humble, to the laurel crown which will ever perpetuate the memory of his life.

# Introduction.

There are few subjects at present, engaging the attention of the Professional world which combine more interest to the investigating mind or more vitally demand our concentrated attention, than the intimate relation of the different branches of Science to this the Father Science - Medicine.

We cannot but express the great delight with which we note the increasing interest manifested in this subject as years advance and learning spreads. Still, we fear, comparatively speaking - that the harvest is abundant and the laborers few. We have with diffidence undertaken a subject so abstruse to one inexperienced and with no idea of adding any new theories or contributing an "iota" to those already promulgated; rather desiring to

develope in ourself an excited interest in this important subject. Impressed with this sentiment, I have chosen a subject on which I have had no treatises to read and but few hints to aid me and the crude materials here contained have been mostly supplied from my own limited experience in Scientific study. As to perspicuity, the Author has particularly to ask indulgence fearing from the novelty of our subject that our efforts to simplify may be somewhat compromised.
Clearness, should be the prime endeavor of all writers, compared with it, eloquence and wit are mere servants. In an entertaining treatise, each fulfills an appropriate end; the one is directed, to the springs of feeling; the other quickens our emotions and pleases the fancy, whilst the first

gives an unobstructed approach to the author's meaning and intelligence. Realizing our inability to perfectly attain these prerequisites, we will endeavor to be accurate in thought and clear in expression, any deviations from which we trust will be leniently dealt with. Submitting these apologies we will proceed with our juvenile production, hoping it will not prove entirely unworthy the perusal of my honorable Superior.

By Science in this connection, we beg leave to treat the subject in a restricted sense confining it to a brief consideration of such of the Metaphysical and Physical Sciences as bear most directly upon the Physician and his Profession.

## The Successful Physician.

We would be understood as alluding to him who, as a patient student of Nature, and a correct observer of her important relations to the functions of life, has learned to know man, to support him in health and restore him from disease. We would dismiss from any consideration one, who by sly and subtle arts has attained a glow of worldly renown or "Castle" of financial ease. It is only him who labors earnestly to know for, ("knowledge is the true end of labor) and who conforms his attainments to the relief of suffering, that will gain that success embodied in the true glory of our Profession. The training of the Physician is, when thorough, a grand and beautiful process of discipline: it is one gradual ascent from the lower and elementary to the higher and more

complex

and for a mastery over all he must have an accurate knowledge of each. His knowledge is one grand whole composed of vital parts, each bearing an important relation to the other and the whole.

First in order and importance, we think that the untutored mind inclining to Medical lore, should pass through a process of Philosophical training and after mastering the primary elements be subjected to Psychological drill. By it alone, can we obtain an insight into the activities of those phenomena which constitute that soul which is the breath of God - the essence and animation of our clay. Without the intelligent self consciousness imparted by metaphysical study, we grope in living darkness. We can know very little of self and little of that fellow-the counterpart of our own nature.

Psychology. The importance of a knowledge of soul is not an invention of today. Travelling back, down the dim vista of centuries, we find that this morning-star of intelligence shone, though dimly, through the clouds of superstition which enveloped the ancient world. Standing alone, upon the rough-hewn walls in the temple of Apollo, was to be seen this warning - Know thyself!
The true interpretation of this terse admonition, for ages was veiled in darkness. It remained in all its pristine glory revered by sages and unexplained by "the oracle". All failed to understand it, hence none applied it and ages of ingenuity did not divest it of one shade of its practical application: nor was it until Socrates - the Aurora of the world's Philosophy, arose bright in Athens,

that the veil of deceptive ignorance began to fade. The great perplexity which then as well as now, attended the assimilation of this adage is explainable from man's natural failings. Conceit, pride and selfishness all served as barriers but a defective appreciation of the necessary qualifications of the learned, doubtless played the most disastrous part. Is it unnatural for us to expect that, the supposable culmination of all animal existence, a creature shaped after God's own image and the stepping-stone between nature and immortality - should know first of all, himself, both practically and theoretically? Should he not study that intricate Philosophy which unites in him all the powers and beauties dispersed in nature? Should he not know something of the laws which

hold the planets in their places; the chemistry of the soil he cultivates; the laws of vegetation and crystallization which control its silent but unceasing evolution?) Above all, should he not have a knowledge of the more lofty relations of mind, to matter which constitute the phenomena of life?

But how is this knowledge to be obtained? It can only be answered - gradually by persevering study and exact observation. He must analyze and combine; not only the truths of external nature but first, the philosophy of his own. He must know something of the mainsprings of action - the reason and will, those sublime elements of his nature which constitute his mastery over inferior creations. Thus only can we obtain a knowledge of man; but

even then it will be superficial, unsystematized and incomplete, and of what value is knowledge without system? it is as the unwieldy mass of granite, but a stepstone at the workman's door; as impracticable theories used by and useful to none. To avail anything from our labors, observation and induction must go together; as with theory and practice, "useless each without the other."
We may labor to know the phenomena of soul but unless we are able intellectually (and dare I assert morally?) to make proper and systematic inductions, we have gained nothing. What process of discipline will enable us best to intelligently appropriate our knowledge and hold it in a ready grasp for usefulness? It is surely that imparted by Psychological

study

that places us on the firmest vantageground in our relations with an outside world. Seeing then and appreciating the fact, that a knowledge of mental philosophy so well subserves our general relations with life, how much more so will they promote our success in the special departments of Science. We have the Physician seeking success in a special branch of Science. To whom could a thorough knowledge of mind, its environments and their relations which constitute life be more useful or absolutely essential? He must know something especially of the mind and soul in health, for it is now his province to administer to them in disease. He is brought face to face with nature: he sees her in the highest types of superhuman endowment

and must administer to her when shattered by disease or deformity. What better avenue of approach to a disordered nature could we possibly pursue than a study of her functions in health?

But it is too true this precaution is largely neglected and here has arisen the hostile array of sciences - "Homeoquacks and Alloquacks", who are casting such disgrace upon our ranks. Too few Medical students are careful to lay the proper foundation; we admit it with regret! We believe men's tastes are naturally averse to the more profound and too many are allowed to follow their own bent or inclination. We should prune, bend and turn them, when young and plastic, into proper courses of thought and practice; for this the land now teems with colleges and universities.

The Medical Student should early learn that superficiality avails nothing.
It is too evident to discuss - to know the philosophy of abnormal phenomena in others we must first study them when normal, in ourselves.... All Sciences have a nucleus which is the governing spirit of the whole - just so with Medicine, it is mental philosophy and scrupulous mental drill which are to constitute the beacon-lights to illumine our rugged pathways.
Psychology supplies the penetrative intellects which are to analyze the abstruse and abnormal entities of professional life. It opens to us grand avenues of thought and reservoirs of elastic love. It is the root of pure intelligence and is the guide of that "mysterious land" which will crown our endeavors with "the laurels of success."

Logic. Having to more or less avail set forth the importance of mental drill subjectively speaking, we will now consider this knowledge in an objective sense. We will suppose this explaination of the necessary training accepted and proceed in our endeavor to estimate its value when systemized by logical elaboration. It will be conceeded that in proportion as our cognitions and volitions are advanced and cultivated, so will our intuitions be more acute and ready to suppliy proper means of classifycation. Having then the ennobling prescience, it remains for the student to apply the disciplinary and invigorating process by which his natural acumen, his habits of attention and correct discrimination are regulated. In the study of Logic we fully realize this necessity.

While we would not depreciate any valuable knowledge, we feel justified in giving great precedence to that which sets forth the laws which govern our intellectual status; hence Logic. "This has been called by some the Science (and by others the art) of the necessary laws of thought or thinking," from which we interpret a philosophical knowledge of those rules the conception of the opposite of which entails intellectual suicide. It is the invaluable resource from whence are drawn the terms which "define the true nature and relation of our thoughts": it gives system to our perceptions and as the "philosopher's stone" shows us the truths of existence and guides us through nature, up to nature's God. It directs us aright and supplies us the drill requisite to a mastery

over many departments of study by exposing their fallacies and enhancing our desire for a pursuit of their truths and beauties. As the light-house to the storm-driven sailor, is Logic to the eager student, it illumines his pathway, guides him aright and prevents his wandering into aimless and erratic exercise of his intellectual powers. From its invariable necessity to the educated man it has received the merited distinction of Scientia Scientiarum.

Nowhere would we deem this invaluable branch of science more necessary or the results of its study of more happy application than to the Medical mind. The advancement of the Physician is through careful observation and inductions. Psychology leads him into deeper and more

intelligent habits of observation; while Logic trains his mind to more correct interpretations of his observations and experiments.
Experiment is only observation aided by artificial means, and is to none of more importance than the Physician: by this we do not mean the aimless guesswork of the empiric but the fair and honest trial of means to a peculiar end; still, experiment is valueless without that veracity of thought embodied in an ability to correctly interpret. Observation does not vouchsafe a reliable answer to our queries, it depends upon induction. One may torture all the dogs, frogs and rabbits in a community and at the end of his labors not have profited, in the least, or have added an iota to the store of previously established facts. We must lead our

minds into those avenues of thinking which enable them to hypothesize fairly and correctly. We must be able to introduce new theories suited to the result of our investigations. Doubtless, many a gem of discovery has been dug from its slumbering Chaos and from inability of the investigator to divest it of its grosser qualities, been carelessly returned to its primal condition.

It was not merely the fall of the apple that flashed within every schoolboys brain the universal law of gravitation; it was the induction of a superior mind, one that could draw an intelligent inference from an accidental fact. Could we suppose that Newton was the only one of his day who witnessed the fall of an apple, we insist it was not all the apple but it was the Newton, who touched,

the mainsprings of creation and set for us the world in motion. Observation when unassisted will avail us little. We may cull from the uncultivated beds of Science, beautiful gems of her love but it requires the Logically trained mind to classify, arrange and simplify them for acceptance. As in sculpture or painting to execute the finished specimen, it is necessary that we have the educated and foreseeing mind to lead the untutored chisel, as it draws forth life and beauty from the dull cold marble or to guide the brush, as it animates with living loveliness the unmeaning canvass. Even so, in our professional pursuits we must have the Philosophic mind to pick out the true, eliminate the false and from an assemblage of symptoms, arrive at an exciting cause.

But it is not expected from the apprentice to execute the most finished specimen, so we trust it will not be expected from the student or the young practitioner to have mastered all the intricate theories which constitute the life of his profession; still, it is in the beginning that we must lay the groundwork and happy is he who appropriates the proper material. Sadly wrong will be the theory and pernicious the practice of him who fails in laying the proper groundwork. We should never forget the indubitable fact - there can be no conclusion from a negative premise and our inferences must be drawn from sufficient reasons. There is no better opportunity for the display of a logical mind than at the bed-side. We have here an assemblage of obscure symptoms which sometimes tax to its utmost the patience and philosophy of our beings!

At the sick-bed, the Physician is, almost unknowingly, called on to generalize and abstract; from the correctness of this his conclusions are valued. This is what makes the Diagnostician; careful observation, exact reasoning and Logical induction and what is more essential to success! Thus we can perceive - Logic is our indispensible - the "sine qua non" to our success. It is to Psychology a twin brother - how could we understand the formal laws which true thought must obey in its application to the discursive faculties without properly knowing the Philosophy of those faculties? it would surely be very unsatisfactory. As has been suggested, why torture nature with cruel experiments without understanding her language in respond or the sick without knowing first those laws whose deviations form their informities. Sufficient, for the two vital elements of our Metaphysical lore.

Physics. We will now discuss the importance of the Physician's understanding external nature.

The training of the Physical man, though incomplete without a knowledge of the metaphysics is by no means complete with such knowledge alone. There is another domain of science with which he must become acquainted, and in which we believe his labors have been and still will be, rewarded by the most abundant return - it is the science which treats of the laws which regulate external nature. Under this division we include a review of the importance to the Physician of a knowledge of Philosophy and Chemistry with brief notices of Botany, Biology and Geology until we arrive at the proper beginning of his Professional studies - Anatomy and Physiology. Coming to his study with a fair knowledge of mathematics and,

the languages, the Student now proceeds to a study of Physics, Chemistry, Anatomy and Physiology. He thus firmly fixes the scientific basis for a successful investigation of all the marvelous incident to the structure and function of that grand masterpiece of mechanism - the body. Without these prerequisite studies, he cannot become the reliable well grounded Physician who will improve by experience and on whom the distressed may rely for aid and relief; he can never build, for his groundwork is bad. From studied routine and well-conned imitation, he may be able to appear in an ephemeral glare but when encountering the world's inevitable and burning criticism, he will shrink into an eternal and ignominious oblivion.

In sketching out the above subdivisions, we would not be misunderstood, they are purely arbitrary.

We would not disregard the invariable continuity and interdependence of the Sciences or neglect to remember that the truths of one have a relation to truths of all and that they form one connected, indissoluble and mysterious whole. At a glance, it may seem frivolous but the unity which pervades our planetary sphere is exactly portrayed in the following verse—

"If a single atom chance to stray, the whole of nature would fasten to the cause"

Regarding then this interdependence, what do we conclude; as in studying our moral nature to understand it well, we must know the Metaphysical laws which control its being; so in Physical research, to know one Science, we must know the one or more on which it depends. Physics lies beneath Chemistry, the latter beneath Anatomy: Anatomy and Physiology go hand in hand. Who could think him an accomplished Physician who knew nothing of the

peculiar properties of solids, liquids and gases; of the laws of acoustics, pyronomics and optics or the different kinds of electricity. Besides the honor of having some knowledge (of the) same, how can the Physician succeed without it? Has he not constant recurrence to Hydrostatics, Hydraulics and the processes of capillary osmosis, effusion, absorption and imbibition. What would become of one professing a knowledge of Physical Diagnosis who knew nothing of the propagation and transmission of sound through media of different densities? How can he avoid knowing something of heat or its production; it seemingly forces itself upon him; and as its successful management constitutes his prime glory, should he not learn of it everything available? How can he dispense with the Thermometer or the principle which governs the rise and fall of the mercury? What would be the progress

of the Physician, knowing literally nothing of the principles of Calorimetry? he would be held in the same sympathy as the teacher of Logic impaled upon the point of a horned syllogism! In the same esteem we would hold the oculist or Optician knowing nothing of that imponderable agent the effects of which are visable on the retina, exciting in us the sensation of light. With the advance of Science we meet another great triumph; it is in the comparatively modern application of Electricity to Therapeutics. Unfortunately the employment of electrotherapeutics in this country has been too much in the hands of empirics, who know little of the agent they employ and less of the important organism they make subject. Much honor would this grateful posterity be paying the labors of our illustrious ancestry but neglecting the transcendent glory which crowned the experiments of Galvani!

for truth we find here the field for remark so extensive that to be consistent with our initiatory promise we will now pass into that border-land of Chemistry where still may be traced these all-pervading laws.

Chemistry: That a thorough knowledge of this branch of study is essential to an intelligent practice of therapeutics will be denied by none. Since the Physician is constantly dealing with the material elements of the earth in his compositions and combinations, what must be his embarrassment on finding himself a stranger to some of the simplest forms of matter to which he has constant recourse! The importance of a practical

knowledge of this branch of study we believe is underrated in most Medical Colleges. We could have no better criterion for judgement than the meager facilities generally afforded for a practical pursuit of experimentation and investigation. Instead of its being regarded an important fellow in these temples of knowledge, we fear too little stress is laid upon it and the proper interest not excited. - How can a practical knowledge of this important branch be best attained? We are met by the undying answer - Observation and induction, observation aided by experimentation: the former is of but minor importance. We may sit patiently and witness the performance of a score of experiments and reap not half the benefit of him having performed a single one; here again, we have the only substitute to practice.

to be merely a looker-on, those of unfortunately of not acute vision are at a double disadvantage. These common deficiencies must be compensated for, and how is it to be done - we would suggest, rigid State or University laws requiring the Medical Student previous to his becoming a matriculate, to have passed, at least, one year of practical analysis in a well-conducted laboratory; but we fail in this important legislation and what is the next best to resort to; as I hope to do in the future, let each young Physician constitute one, in private, for himself. Without constant recourse to experiment & test, our chemical lore will suffer the canker of age. Time and the march of science wait for no man; the busy bees will work and the drones are expunged from the hive. The microscope, the test-tube and spectrum have opened to us magazines of knowledge hitherto unknown

and unless by constant resort to test, we keep face with the onward evolution of matter, we will be down-trodden and neglected, by the march of an army of workers.

Knowing the different fields of labor in which the young physician is often thrown from accidental circumstances, a knowledge of the different kinds and departments of Chemistry is a necessity. All cannot practice where Pharmacists and Chemists await them but many will have to attend to it themselves. Hence the importance of a knowledge of composition and decomposition - agencies continually at work in the composition of his medicines and the destruction of his patient. Air, food, water and chemicals all comprise the same few elements in various states of combination. An acquaintance with the properties of these, their relation to the economy when properly or

ignorantly used and the forces which govern their combination in poisonous or salutary doses, will continue to be of interest to man, as long as it is his greatest of all pleasures - to live. Chemistry teaches the young Physician the operation of all substances when brought in contact with the tissues and the proper antidote when poisonous action is set up. It gives him an insight to the ceaseless interchange of matter which constitutes his life and when irregular, his death; and is to him as that powerful but "mysterious" "wand" by which is staid the inexorable arm of fate. It opens to us the progress of ages and is the key to nature's most intricate problems, wielded by Davy the immortal, we were blessed with Sodium and Potassium, in the hands Priestly, God divulged to us oxygen - that secret, indispensible to all life and combustion.

Like these bright geniuses, the Physician is invited only to study from the book of nature and his reward will follow. "Nature the mother of us all, has inscribed her unfading, her eternal record upon the canopy of the skies and she has strewn it all around us on the platform of the earth." She does not command us what to do nor order us what to think". She only invites us to her great laboratory to investigate and work; when it remains for every honest laborer to apply his attainments to the advancement of his own and his fellow-man's estate. "For him who neglects her, she has no revenge"; it is only his own misfortune; there is no social ostracism save the intelligent man's instinctive hatred of the ignorant and inert. "To him who, in purity of spirit, worships in her heaven-pavilioned temple,

she offers her guidance, to that cloudy shrine, on which truth sits enthroned, dark with excess of light. Shall not he who volunteers to study the language of nature, to interpret her hidden meanings, to wrestle with these laws "infinite in influence and eternal in duration", reap that success promised by the Omnipotent to every worker in his vineyard who would vindicate his Magesty." For, these eternal laws of nature are but the secret thoughts of God.

With this consideration of the preliminary training of the Medical Student, we have now arrived at the beginning of his professional study. From what precedes, it is surely evident, at what a vantage-ground the student would be, thus brought, in what a commanding position his training would have thus placed him, how well adapted would be the mind to reflection.

Even be his inclinations changed from a pursuit of the Medical Art, what an excellent foundation has he implanted, on which to build. For man could be better fitted to understand the world or the men with whom he must deal!

As the trite maxim, before we can well govern, we must learn to obey; before we can know man well enough to be the great teacher - the Doctor, we must know something of that claim of mysterious laws which govern his own nature.

We begin now with the Study of Anatomy and Physiology; in the former we find the result of those delicate operations of matter denominated, Chemical Action, combining atom into molecule, molecule into substance and substance into organism or the grand mechanism our body.

In the latter we have active, true, ceaseless and infallible metaphysical and physical laws giving life to the inert organism - the exactness of which is guarded by the wisdom of God. To study the function of a part, we must have first the part and a knowledge of its structure - hence the precedence of Anatomy to Physiology. We will proceed next with a brief consideration of some subsidiary branches most likely to be overlooked. Here Botany, Biology and Geology demand brief notice.

Botany bears so particularly upon an understanding of Materia Medica, that without its classification would be impossible, another prime element of confusion and embarrassment.

Biology, though it may seem as patent as the fact that two and two are four, to decide between the plant and animal we may here go astray.

In this quaint borderland of Nature we find room for a display of man's most discriminate talents and judgement: but since it is our pleasure to deal only with nature's most consummate species, for the present, we will waive further tedious discussion.

Biology fixes our convictions in the belief in man's independant and supreme position in Nature. We need only pursue comparative Anatomy for this point or follow the classification of Nicholson from the stateless protozoa to our own situation.

Geology: whilst it is not a link of vital importance in the Physician's chain of knowledge, from its comprising the most important of Nature's laws and relations, it must be to him of exceeding interest; it heightens the quality of his attainments and fixes his attention more accurately to the many Phases and Phenomena of Nature with which he comes in contact.

Having closed our tedious consideration of the essential elements of the Physician's education, we will conclude with a review, though desultory, of other equally important conditions.

Whatever has actuated the Student to adopting the Medical Profession as his life-work, we feel sure, by following the course of study sketched in our preceding pages, none will have reason to regret his choice. He proceeds "pari passu" in the order of Nature from the simple to the more complex, advances from one observation to another until his aims is reached - in eternity alone.

The many quacks, empirics and intellectual cripples thronging our ranks are instances - not of the earnest, patient worker who climbs step-by-step up the hill of Science but of him who has made stepping stones of a suffering humanity and by vain practices, attained an ephemeral glare of earthly fame

It is for us next to direct attention to the cultivation of the practical man. By this we mean, one capable of practicing his profession in an easy, unconstrained and acceptable manner: Since life itself has been divided into the three stages youth, manhood and age, let us in this morning of our existence, culle such gems of learning from the "Elysian fields" of Science as will bedeck the snowy crown of age and enshrine our lives in the grateful memory of posterity! True, if we know nothing of the starry firmament over our heads; of the air we breathe, of water, light nor heat or the great mineral resources whence come our remedies, we might be justly termed an intellectual effigy; but knowing all this, and devoid of the tact of its practical application, we might, on the other hand be termed a practical ignoramus.

valuable! is that head crammed with theories which, from extraneous circumstances never meet with application. Woe! will come upon him who, by arrogance or mistaken ideas of social worth, refrains from directing his attainments to the relief of the poor. He is enthroned upon a pedestal of conceit the eventual overthrow of which is inevitable; he is as wise as "the Philosopher" who tore off his nose to insult his face! The true honor of the Profession enjoins upon us, kindness, moderation and forbearance: intelligence is not always an innate endowment; how great then is the error in any thus wickedly and willfully perverting the Gifts of God. We do not advocate a universal submissive condescension of manner, such would place the unhappy Physician beneath the honor of his Profession, he should entertain a respect for himself and by mild determination and gentleness, the respect of others will follow.

The Medical Profession seems to offer the very best opportunity for a display of man's nobler qualities. It calls forth not only the originality and height of his intelligence but the depth of his moral nature. In its experiences, it touches the springs of sympathy and calls forth that kindness which makes out the physicians and gives the confidence of our patients: but no student of Medicine can successfully model his career from the life and experience of another; he must revert to himself, appreciate his own deficiencies and proceed to renovate himself. He must apply his own heart and mind, purely and earnestly to an acquisition of the necessary knowledge, in fine, he must be true to himself, and it will follow as the night, the day - he cannot then be false to any man! Sincerity, patience and energy are additional elements to his success. Unless, we are sincere,

we cannot fix the confidence of any to whom we are called to administer; this distinguishes the true Physician from the untutored and vain-boasting Empiric. Patience, in our Profession as well as in our general relations in life, will never cease to be a virtue. It was essential to our acquisition of those eternal laws concerned in our preliminary study and is no less essential to their successful application. Failure must attend the Physician who, when confronted by the involuntary whims of a nervous patient, will manifest the unamiable features of his nature. Here is an excellent test of man's intrinsic worth, he has presented an opportunity for a mastery over obdurate circumstances and doubly valuable is the victory thus attained.

Appreciating then what an excellent thing is the Medical Art, to call forth and put to practice

the elements of moral and educational man, what next is required for us to shine above the mediocre who snail-like streaks with a deceptive over every department of science. One thing yet needed is an energetic determination to conquer the many difficulties which will beset us. But this determination must be guarded. We should not set forth from Collegiate halls blinded with conceit and determined to annihilate every theory not conforming to our own.

We must not misinterpret the real meaning of a diploma; it is not a license upon the credit of which any fool may do as he pleases; it is not a sceptre by which to slay those of inferior advantages, nor is it an instrument legally certifying that we have mastered our profession and need no further study.

On the contrary, we should regard it as our certificate of entrance to a School, where our tasks are many and our labors hard. Too many regard their graduation as their laurel crown when it is in truth the mere completion of their first step toward success. It is their entrance to the great School of experience and laboratory of Nature where study is the motto, perseverance and experiment the watchwords to success.

It is at no time the part of the Physician to exult in the overthrow of articles of faith which have sustained men in the dark hours of life and the still darker hours of death. It can be no pleasure to a generous nature, inevitable though it be, to shatter the faith of even the

poor Indian who, driven from his hunting-ground by the inexorable fate of a stronger race, looks up with feeble faith to the Great Spirit and forward with a dim hope to the happy hunting-ground far away where the sun goes down." To aspire to be first to proclaim the downfall of a position of refuge to which men have clung for generations, seems to display a pitiful ambition in the fool who does it, a strange ignorance of what is the true goal which the young Physician should strive to reach. Determination must be wedded to discrimination and genuine philanthropy: it must be of that quality which inspired the noble scientific martyrs of the inquisition who suffered death rather than snatch from a needy posterity

their genius of truth and philosophy.
Proceeding thus, we will surely have attained a winning and well directed ambition. Though we should be ambitious, bold and confident in approaching the bed of Surgery or Medicine, our zeal must not partake of that wild enthusiastic nature which will carry us blinded into the terrible regions of malpractice. In the field of battle we have this beautifully though sadly illustrated in the lives and unhappy end of the heroes of strife. We have this instanced in the fates of Cesar, Alexander and Napoleon: that they were blessed with the highest endowments of reason and will - none will deny and that these great geniuses were slaves and martyrs to an illdirected and unconstrainable ambition, all regret to admit.

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But we trust the scientific Physician will not near these Scylla's or Charybdis of misfortune. If in the dawning of his medical inclinations, the mind be made acquainted with the laws governing its own intricate Philosophy and drilled into habits of logical reasoning, taught to discard the bad, and assimilate the good precepts of life and love, it will not be known of him to stray into the erratic ways and ruinous practices of the many unsuccessful. After laying the proper foundation for the study of our Profession, we must pursue it in the calmness of wisdom. Direct our aspirations to pushing to its true end, the great scientific resources at our command. "We must track the science to her fountain-head; often ride the recesses in the temple of Nature" and worship at her silent but majestic shrine.

The venerable garb of ages, rent by the missiles of criticism must be laid aside; progress is now our watchword and improvement our object! The famous writings of Hippocrates and Celsus are now but rusty links in that grand chain of systematic knowledge which extends through all, from the loathsome Jungus to the consummation of his genius man.

So much then for the three chief topics to which we purpose confining our dissertation - viz

The importance of Metaphysical drill in elevating the mind to a knowledge of itself and preparing it to assimilate vital but otherwise obscure truths in the Profession,

The value of knowing the Physical Laws active in Nature and in the cure and diagnosis of disease,

The practical qualifications which we must cultivate, to justly merit the esteem of the world in life and in death - to pitch our tents on the "Campus Martius" of eternal fame

# Finis!

Gentlemen of the Faculty! permit me with pleasure, to express to you my gratitude for the parental solicitude and diligent care with which you have conducted me to this period of advancement in my Medical studies. I would certainly be an alien to that great sense of duty to superiors, which should actuate all students and insensible to the emotions of filial affection, did I let pass this precious opportunity to express my thankfulness for the great kindness you have conferred upon me. Allow me therefore, to subscribe myself your earnest well-wisher and obedient humble servant

Neil C Batelle.

Dec 31st 1871

An Essay
on
Digestion
Inscribed to Prof. Donaldson
By
C. J. Bales of Va.

February 1878

# Digestion

The first act in the process of digestion is that of mastication by which the purposes are accomplished viz: the reduction of the food into a pulpy mass and its thorough incorporation and admixture with the secretions of the salivary glands The Saliva is a colorless slightly viscid and alkaline fluid with a specific gravity of 1005 It is composed of water organic matter sulpho cyanide of potassium phosphates of soda lime and magnesia chlorides of sodium and potassium The quantity of saliva secreted per day will vary according to varying

incumstances If the food be hard
nd dry the secretion is very free
nd abundant - if the food be soft
nd moist - the necessity for saliva
is less and consequently the amount
poured forth is much smaller
But - the average amount - has been
estimated by Dalton at about
4 ounces and by Bidder & Schmidt
t - about 51 ounces One of the uses
f the salivary secretion is to aid
in exciting the sense of taste by
dissolving such ingredients of the
food as are soluble in it - thus
enabling them to be absorbed and
to come in contact with - the ter-
minal filaments of the gustatory

nerve. Another and probably the chief purpose subserved by the Saliva is to coat the bolus of food with viscid secretion and to lubricate the parts concerned in mastication and digestion in order to facilitate these two acts Saliva possesses the additional property of converting cooked Starch into glucose and it was formerly supposed and still is by some Physiologists to be the chief agent in transforming amylaceous articles of food into that form in which alone they are capable of being absorbed. But while it is true that not only does the Saliva have this property

but that the change begins very
quickly under the proper conditions
yet it is very questionable indeed
whether during the brief period of
time a morsel of food remains in
the mouth the transformation effect
ed in Starch by the Saliva is
sufficient to deserve to be considered
at all Even by those who claim
that this is one of the great uses
of the Salivary Secretion it is acknow-
ledged that the objection just
urged is valid but they believe
that its power over Starch contin-
ues to be exerted after the food has
reached the Stomach On the other
hand it is asserted by such

authorities as Bernard Dalton and others that the presence of gastric juice effectually arrests the action of the Saliva Dalton found that if equal volumes of Saliva and gastric juice be mixed with a Solution of Starch in water both at 100° there was no reaction indicating the presence of Sugar at the end of five minutes and only an imperfect reaction at the expiration of half an hour But if three volumes of gastric juice and one volume of Saliva be added to the Starch the mixture gives no indication of Sugar even at the end of an hour Whence he concludes

that inasmuch as the amount
of Saliva is never in greater if as
meat-portion to the gastric juice
is one. to three no transformation
of starch into glucose is wrought
by the Saliva after deglutition.
Experiments upon dogs strengthen
the conclusion. It has been found
that when these animals were fed
upon a mixture of meat and boiled
starch no sugar existed in the
contents of the stomach at any time
starch was found for a considerable
time but even after it disappeared
there was no sugar the disappear-
ance of the starch being due not
to any chemical change but simply

to its passage into the duodenum
The food after having been subjected
to mastication and insalivation and
digested to a limited extent it
passes from the mouth to the stomach
there meets with the gastric juice.
This secretion is the great solvent
of albuminous mattens and it owes
this power to its acidity and to
that ingredient which is called
pepsine. The gastric juice is
always acid and very markedly
so as it always contains a free acid
It does not appear to be satisf-
actorily determined even at this
day whether the acid of the gastric
juice is Lactic acid or Hydrochloric

acid. Some authors contend that it is one and some the other. Both pepsine and a free acid are indispensable factors in the digestion of nitrogenous food neither can act alone. Pepsin cannot convert albumin into peptone except in the presence of an acid liquid. If the gastric juice be rendered neutral by the addition of an alkali digestion is immediately arrested though it will be resumed if the fluid be rendered acid again. On the other hand albumen might lie in an acid liquid for an indefinite time and never be converted into albuminose unless pepsine be present

It is to be observed that the action of the gastric juice is not limited to the stomach but it continues to be exercised even after the food has passed into the intestines. The average quantity of the gastric juice secreted during 24 hours has been estimated at about 21 pounds. Immediately after the ingestion of food the gastric mucous membrane becomes injected with arterial blood the temperature is slightly increased and the gastric juice begins to be secreted. Simultaneous with these changes the peristaltic action of the stomach is excited by which the food is churned up carried backwards

nd forwards and intimately incorp-
rated with the gastric juice. As has
been seen the albuminoid materials
becomes softened and converted into
peptone If amylaceous or oleaginous
not be combined in the food
with the nitrogenous elements the
former are simply set free to be
acted upon by other agents at the
proper time and in the proper
place. After the food has been
acted upon by the gastric juice it
passes from the stomach into the
intestines there it meets with
the pancreatic juice which plays
a very important part in chyl-
ification. Of the ingredients of this

fluid the chief one is pancreatin
While the Salivary and gastric se
cretions possess respectively but one
chemical property the action of the
fluid under consideration would
appear to be at least three fold
In the first place it possesses the
power of converting Starch into glucose
and that too in a very marked degree
According to the Statements of inves-
tigators who have experimented with
both fluids the power of Salivary
Secretion in this respect is very
feeble compared with that of the
pancreatic juice and the action
of the latter is not limited to
hydrated or cooked Starch as the

former is, but it extends even to the raw article In the second place it possesses another property of equally as great importance as that referred to viz: that of converting oils and fats into an emulsion that is of reducing them to a state of the most minute subdivision thus rendering these essential elements of food capable of being absorbed and assimilated It was formerly supposed that the bile was the chief if not the solvent in working this change but Bernard has shown that in the rabbit at least it was not the case and there is no reason to suppose the case to be different

in man The pancreatic juice is
lso endowed with the additional power
f dissolving coagulated albuminous
matter. Bernard to whom we owe
so much of our knowledge of Phy-
siology was the first to discover
that this property pertained to the
pancreas and the same conclusion
has been reached by other investi-
gators though it is still denied by
some Upon the whole however
there is scarcely a doubt but that
it does possess this power and hence
in this regard it may be supple-
mental of and auxiliary to the
gastric juice, especially when the
latter agent becomes from any cause

deficient in quantity or impaired in quality. The quantity of pancreatic juice secreted per day is difficult to be ascertained with accuracy it has however been estimated at about 2 pounds a quantity immensely below that of gastric juice but it is to be remembered that the active organic ingredient pancreatin is present in much greater proportion than the corresponding element of the gastric juice. The intestinal juice also performs a part in digestion. The sources of this fluid are two fold. From the glands of Brunner which are found almost exclusively in the upper third of the duodenum. And

also from the follicles of Lieberkuhn which exist throughout the intine of the small intestines Brunners glands being few in number speaking comparatively and being confined to a small section of the intestine that whatever property digestive or otherwise is enjoyed by the intestinal secretion is due chiefly to that portion of it which is elaborated by the follicles of Lieberkuhn However that may be the mixed fluids of both sets of glands have been found to possess two properties in common with the pancreatic juice viz: that of converting starch into glucose and that of forming

oils into an emulsion though it
vents these powers in a much more
feeble degree than does the pancreatic
secretion
The bile is secreted by the liver
and is conveyed to the intestines by
the ductus communis choledochus
The amount of bile secreted daily
is estimated by Dalton at about 2½
pounds The bile does not aid in
digestion but it is essential to
absorption of the chyle and also
to the assimilation of the same It
also prevents decomposition of the
food in the intestines and by so
doing prevents the formation of offen-
sive gasses Some Physiologists have

xperimented upon some of the lower
nimals by preventing the bile from
ntering the intestines and they found
that the animals gradually became
maciated and eventually died of
anition The appetite of these ani-
nals remained good during the abse-
ce of bile in the intestines and
igestion went on without absorp-
sion or assimilation

An
Inaugural Dissertation
on
Chorea.
Submitted to the Examination
of the
Faculty of Physic
of the
University of Maryland,
For the Degree of
Doctor of Medicine,
By
Le Roy C. Fowles
of
Maryland.

Session of 1877 & 78.

# Chorea.

It is usual for all who apply for the degree of Doctor of Medicine, to submit, to the Faculty of the school they represent, a Thesis or Essay on some subject connected with Physiological or Pathological action; and, in answering the different topics for the students pen, my attention is directed to the Nervous System, and to the disease known as Chorea. Chorea may be said to be an irregular convulsive action of the voluntary muscles, of a Clonic kind, being but little under the influence of the will.

The History of Chorea is a sad picture of superstition. As late as the close of the fifteenth century it does not appear to have been studied by physicians, but was supposed to depend upon supernatural causes. In Germany it is said to have existed as an Epidemic; and the patients, probably some of them maniacs, were wont to join in frantic dancing, and as late as 1693 they went in procession to the church of some favorite saint, of whom St. Jhon, St. Guy & St. Vitus were the most reputed

(hence the name St. Vitus's Dance under which the disease is sometimes described), and as physical remedies were supposed to be unavailing in such a disorder, the Priests said masses, sung hymns and sought by such means to exorcise the foul fiend.

## Symptoms.

It usually comes on gradually and is often preceded by symptoms of Gastro-Enteric derangement, such as irregular appetite, constipation &c, which are frequently accompanied with depression of spirits,

or other signs of nervous disorder. The first unusual movements are often more especially noticed in some one part of the body as the face, or hands, or shoulders; the patient making ludicrous grimaces, or shrugging the shoulders, or incessantly working the fingers. The irregular muscular action increases and attength the whole body more or less becomes involved. Head, trunk & extremities are in almost constant motion. The features undergo various whimsical distortions, as if the patient was endeavoring

to amuse the spectators; and in attempting to convey objects to his mouth the arm is jerked about in various opposite directions before it reaches the point aimed at. The muscles of the mouth & fauces may partici-pate in the morbid action. Deglutition sometimes becom-ing difficult. The tongue is thrust out between the lips. Stammers or hesitates in speaking. One side is some-times observed to be much more affected than the other, and this is usually the left. It seldom happens that the

muscles are entirely quiescent, except during sleep, when the motions usually cease entirely, or are very much diminished. In some instances they are so severe as to interfere with sleeping. The disease is subject to exacerbations & remissions. The irregular motions are often greatly increased by any emotion, the patient being worse when conscious of being observed by others. There is generally hyperaesthesia especially along the tract of nerves, and pressure over the nerve trunks may

excite the choreic movements. There is great susceptibility to electricity & reflex excitations. There is no fever. Chorea is sometimes attended with headache. The appetite in some instances may be natural, but generally deficient or capricious. It is a singular fact noticed by writers, that there is much less fatigue than would result were the incessant muscular actions under the direction of the will. The temper is more excitable, capricious or apprehensive than in health.

The patient often weeps without apparent cause, or is gloomy; and evinces various nervous disorders not unlike those attendant upon Hysteria, which not infrequently is associated with this disease when it attacks females about or beyond the age of puberty.

Anatomical Character.

The evidences which anatomy afford of the nature of Chorea are almost entirely negative. In complicated cases, in which death has occurred, the Brain & Spinal-

Cord, in many instances, after a most careful scrutiny by the most skillful pathological anatomists, have been found healthy. Others have observed various lesions; such as, embolic obstructions in the Corpus Striatum, serous effusions in the meningeal cavity of the Spinal-cord, softening of the Brain & its membranes &c; but these may have been the result of complications independent of Chorea in their origin. However it is obvious that Chorea must depend upon some Organic affection of the Brain.

Pathological Character.

It is easier to say what Chorea is not than to say what its essential nature is. It is a disease dependent upon a debilitated state of the system, which does not seem to arise from any inflammatory or hyperaemic state of any part of the great nerve centres or other organs; indeed it is hard to fix upon any particular part of the Brain in which any thing like structural lesions exist. The disease seems to be rather one of functional disturbance, than

out of organic change, and these views even seem to be sustained by the results of Post Mortem examinations. Some have believed it to be essentially an affection of the Spinal-cord, and that the involuntary movements were due to a reflex action of the nerve centres in that structure; but it is obvious that this view is incorrect for the following reasons. The motions are unlike those which result from spinal irritation, as the spasms of Tetanus, and those induced by Nux Vomica;

also the irregular movements can sometimes to a certain degree be controlled by the will, which would hardly be the case were they spinal. That they cease most always during sleep, and in this respect differing from the movements springing directly from the spinal cord, which do not cease during sleep. The headache which not infrequently accompanies the disease is further evidence of its cerebral location. The part of the Brain, which is thought to be more particularly the seat of the

disturbance which gives rise to the singular phenomena, would seem to be that which is regarded as the centre of emotion; and this view is partly sustained by the frequency of the attacks of Chorea brought on by fright, which points to this part of the brain, which has such extensive connections with & control over other parts of the Nervous system. Whilst the awkwardness & exaggerated character in all the movements points to that part of the Brain

in which resides the faculty of muscular coordination, the Cerebellum; but other centres in the Brain also preside over coordination, as the Corpus Striatum, which seems to be the centre affected in Chorea. There seems to be a close connection between this disease & Rheumatism. The general character of the Urine bears a marked resemblance to that in Rheumatism. The proneness of patients of a Rheumatic constitution to attacks of Chorea; the tendency to a repetition of attacks in both diseases;

the frequency in Chorea of Endocardiac affections, so common in Rheumatic states, all point to this affinity between the two diseases.

## Etiology.

An unsteady excitable state of the Nervous system constitutes a predisposition to Chorea. Such a state is apt to attend a feeble condition of the general health, hence the disease is frequently observed in individuals with disordered digestion, and defective nutrition. Age has has a great influence over

the occurrence of this disease. It very seldom attacks young infants or old persons, and is most frequent between the 6th & 15th year of age, that is between the second dentition & the period of puberty. Sex seems to exert a powerful influence, females being much more liable to it than males; the ratio being about three to one. According to the observations of some writers it rarely occurs in hot climates, and they consequently attribute the frequent changes of temperature in the Northern climates as a predisposing cause;

but never-the-less it occurs more frequently in the hot than in the cold seasons of the year. Whatever tends to debilitate the system, and impoverish the blood, together with age & sex, may be said to act as predisposing causes. Among the exciting causes are; any emotional excite-ment, especially terror; over exertion of the mental faculties; irritation as the result of dentition; disordered stomach and bowels; hepatic derange-ment; worms; uterine diseases; suppression of the menses; Rhen-matism; depraved habits, as mastur-bation &c.

## Diagnosis.

This is not difficult. The absence of fever, coma, delirium & rigid spasm; together with the whimsical & ludicrous character of the movements, are sufficient to distinguish Chorea from other brain or spinal affections. However in some cases it may be complicated with Epilepsy, Paralysis or Hysteria &c, it being dificult to determine how much belongs to the one affection & how much to the other.

## Prognosis.

Uncomplicated Chorea is very rarely fatal. Instances have occurred, however, in which the system has been worn-out by the violent and incessant agitation, in which some vital function has been arrested sufficiently to occasion death. The course of Chorea is not uniform. It may be relieved in several days or weeks, or it may run on for months or years. By proper treatment timely employed its course most undoubtedly is much shortened. It's duration

on an average under proper treatment varies from two to six weeks. A few cases will not yield to remedies and run on for years. When long continued it is thought to weaken the mental powers; and has also been accused of inducing Epilepsy, Paralysis &c. Relapses of this disease are quite common.

## Treatment.

We have not in this disease any inflammatory or disorganizing process to combat, but simply to improve

the condition of the blood, amend general nutrition, calm the nerves and infuse tone into the muscles. A great number of different remedies have been advocated by different authors as curative of this disease, and it is doubtful if any have a special curative agency, for the affection has an intrinsical tendency to recovery; however, much benefit may be derived from judicious treatment, and the physician must exercise his

judgment in adapting the different remedies to different cases. Among the more important of these remedies are arsenic, electricity, zinc, opium, strychnia, carbonate of iron, cannabis indica, purgatives, and in severe convulsions antispasmodics. The best remedy, and that in which we should place most reliance is Fowler's solution of arsenic, in gtts, three or four drop doses, gradually increased and long continued; galvanism is also very good.

Hygienic measures are not less important than remedies. Nutritious alimentation, and exercise in the open air, are highly important.

Finis.

Respectfully submitted to the Faculty of the University of Maryland

By

L. R. C. Fowles.

An Inaugural Essay written upon the subject of Typhoid Fever presented to the Faculty and Regents of the University of Md. for the Degree of Doctor of Medicine by

Frederick S. Thomas of W. Va.

February 14th 1878.

# Typhoid Fever:

I have selected with diffidence the subject of my Thesis Typhoid Fever. It is a pestilence of fevers having a considerable variety of symptoms, some of which can only be recognized by close observation. In miasmatic portions of the Country, it is more or less mingled with Remittent Fever. The probabilities are that the whole human race is liable to this disease, in fact it is found according to the best information on the subject in all inhabited regions. Under the researches of Louis the Anatomical Character with the Exterior characteristics, gives us sufficient knowledge, to recognize the disease in every variety of assist. It is a continued fever characterized by the rose colored spots, though various names have been suggested, viz Abdominal, Enteric Fever etc., those names are objectionable, because they are apt to convey

the impression that the fever is the result of these lesions. Typhoid Fever is distinguished from all other fevers by the intestinal character of the lesion. Dr. George B. Wood claims that the intestinal affection is as characteristic of Typhoid Fever as the eruption is of Small pox.

Symptoms and Causes. In many cases before the patient is compelled to take his bed the disease is preceded for days or weeks by indefinite premonitory symptoms which make it very difficult to determine the exact nature of the affection, Mental dullness, poor appetite, indigestion, restlessness, headache, wandering pains in the limbs, and back and repeated bleeding from the nose (Epistaxis) skin is hot, face flushed and the pulse increased in frequency, tongue is coated with a whitish fur. Those symptoms continue to increase

with intensity, with daily remissions for several days or perhaps a week from the patient takes to his bed. In the majority of cases a looseness of the bowels is observed, if this is not the case a dose of Cathartic medicine operates with more activity than under ordinary circumstances. Frequently pressure made on the bowels over the right Iliac region shows tenderness, a slight gurgling of liquids and gas. This is observed, in the advanced stages of the disease. It is very rare in typhus fever. (The diarrhoea in the disease from 4 to 6 stools) assist in diagnosis when they take place in early days it adds very much to the danger of the patient. There is seldom severe pain of the bowels except when perforation occurs but when pressure is made over the Ileo-Coecal region pains are manifested. The discharges are thin yellow

ochre color like pea soup. when such stools persist day after day, you may conclude at once that there is ulceration of the bowels and if hemorrhage takes place it will be more certain of ulceration, Tympanites is a constant attendant of this disease it usually comes on about the seventh day it increases as the disease progresses. In mild cases it is slight and vice versa. The rose colored eruption is said to be the most characteristic symptom of this malady, it consists of small red spots usually round-ish a line in diameter slightly prominent, which disappear on pressure and return when it is removed. They generally make their appearance from the 7th to the 14th day, or later. They appear first on the abdomen then on the breast their number varies. They appear in successive

crops, lasting a few days and disappear. It is maintained by some that they are occurring in a few cases, but owing to their scarcity and small character they are probably overlooked. They are sometimes confounded with petechiæ but when closely observed can be easily determined. Petechiæ is extravasated blood upon the skin and will not disappear on pressure. It is more common in Typhus than Typhoid fever it is sometimes extensive constituting vibices. Sudamina are minute vesicles size of pin's head or some larger may be circular or oval and can not be seen in some cases without viewing them obliquely may be flat to the fingers, they appear usually on the neck and upper portion of the chest rarely in the axilla or groins of the patient. It has been noticed by some on the whole body

except the face. They make their appearance with dark red spots. Very seldom occurring before 4th day and not so characteristic. Showing themselves in other febrile affections. Cough is very common in this affection. It is either dry, or you may have slight Expectoration, with some soreness in the chest. Whenever you have Crepitant rales or sub-crepitant, you will have Pneumonia complications. The nervous symptoms are very common in this disease. Headache is the most common and troublesome: dull and heavy pain in forehead and eyes. It usually lasts for a week, then gives way to stupor or delirium, and does not return when these are relieved. Dullness of mind is very common showing itself in the countenance. Blank or dejected patients do not wish to be disturbed

and answer questions carelessly and re-
luctantly. This condition of things increases
with the disease, until delirium, stupor,
or coma supervenes; but seldom so.
It is found that the patient cannot be
roused by speaking in a loud tone, for
days also coma-vigil; restlessness, de-
lirium, not increased until about the
seventh day or later and is to be con-
sidered dependent on the morbid condi-
tion of the blood. The mind is wandering,
the delirium in some cases very violent,
in in the last stages low and muttering.
Bed sores are apt to occur in the last
stages owing to long continued pressure
from lying in one position The patient
not being sensible of it and often not being
able does not change his position. Sometimes
there is retention of urine in consequence

of defective sensibility, and should always be looked for in protracted cases, should guard against deception. I shall not attempt to give all the varieties and complications in this disease but for all practical purposes the symptoms set forth in the above will I hope be sufficient requirements from my hand.

I shall next pass to the Pathological character of this malady and be as brief as possible. According to some of our best Authors there is not an organ of the body but what at some times you meet with signs of inflamation but all agree I believe that the glands of Peyer are principally the seat of inflamation, it is in fact the test of the existence of the disease. The credit I believe belongs to Louis for fixing the precise

nature of the affection the fact has been demonstrated by American Pathologists. Dr. Gerhard Jackson and others. The Glands of Brunner and mesenteric are seriously Effected.

Causation of Typhoid Fever is not confined to any boundary it prevails in all parts of the world, Young persons are more liable to the disease, than old persons. It is said to be extremely rare after fifty years of age owing to the disappearance of the Glands of Peyer. Each sex are equally liable to this malady. From the researches of the most prominent practitioners of the present day it is beyond a doubt a contagious disease and it appears that the poison emanates from the Excreta or intestinal discharge. The period of incubation is said

to be about two weeks.

Diagnosis:

The slow and insidious mode of attack, Diarrhoea at the onset or soon after, dull and heavy expression of countenance, dusky hue of the face Epistaxis, cough, and bronchial rales after seven or 9th day dryness of the tongue rose colored spots Sudamina Lymphadenitis deafness stupor or delirium. It is very difficult sometimes in the incipient stage to determine the difference between typhoid and typhus fever. Some delay may be necessary to arrive at the proper conclusion. It may be confounded with Meningitis, Bronchitis, or Enteritis, but from careful observation in the most of cases the practitioner may reach a correct conclusion.

Prognosis:

Typhoid fever is considered by most Physicians a severe malady. It is considered more fatal in Hospitals than in private practice it varies at different places and periods also at different seasons in the same place. Death generally occurs from intercurrent affections, or preexisting disease. The mode of dying is by Asthenia. A notible increase in the temperature in the Axillary region, denotes Great danger the temperature 107° or more is a fatal sign.

Treatment:

The object is when the fever is once Established is to conduct it to a favorable close. It is not safe practice to lay and cut short the disease, by Emetics or

Occasions it would be well however to give an Emetic if the stomach is loaded with indigestable matter, or a purgative where indicated, Cold or tepid sponging when the surface is hot, is very good and should be continued if the patient derives benefit from it above all things, observe strict cleanliness all discharges should be received in some vessel containing some disinfectant. Allow as little intercourse as possible. Persons visiting the sick room should never enter it fasting. The hair of the patient should be cut close, and if the head is hot and dry Cold applications will be beneficial, you should be governed to some extent by the temperature and the patients feelings. Intense headache, face flushed, and great

heat of surface fever running high. I would give one or two Officinal Vitium Powders in the early stage. Veratrum Viride, Digitalis, Crushed ice when the skin is hot and dry. In the course of the disease if there is diarrhoea and tenderness over the right Iliac region with gurgling, give Turpentine by the mouth, and apply Turpentine Stupes to the abdomen. If the diarrhoea should become profuse give a Dovers powder from time to time according to effect. Opium should be given with great circumspection. When judiciously administered it is a valuable remedy in the disease and patients would inevitably sink without it. It is always best to commence with small doses, and repeat it according to the indications presented in the

case. Hydrate of Chloral is given in
order of Potassium to produce sleep.
Early resort to Animal broths and Wine
when indicated and should not be
overlooked in great many cases and
should be given in small amounts
at short intervals, Brandy seems to
be the favorite Stimulant. If the
symptoms should not abate the tongue
cutting dryer, and Abdominal dis-
tention remains the same I would
unhesitatingly use the Oil of Tur=
-pentine in fact it may be used
in all cases in advanced stages,
when the tongue is dry and pulse
not very strong, it acts as an alter=
ative to the ulcerated surfaces. It should
be given in doses from 10 to 20 gtts.
every hour incorporated with Gum

Acetic, sugar and water. Ice and stimulants are absolutely essential in a great many cases. State of pulse, skin, and condition of nervous system, should guide the practitioner in the selection of the remedies and the time when they should be administered. Sometimes it is required to pursue a tentative course. Rubefacients are called for when the skin is cold with debility, temperature should be maintained by hot bricks, bottles of hot water etc, if perforation of the bowels should take place producing Peritonitis, large doses of Opium should be given as proposed by Crowe and Stokes. Observe rest and discard every thing that would in any way disturb the bowels. The patients position should be changed frequently to prevent

coughing. Bathe the perineum & pubis with spt. Terebinth or Equal parts of Balsam Copaiba and Castor Oil. The state of the Bladder should not be overlooked use the Catheter whenever required.

Diet.

Should be mild such as barley water milk and toast lemonade ice water may be used. Whenever symptoms of debility shows itself a more nutritious diet should be used, cup of tea. If the stomach is irritable; Lime water and milk answers a good purpose. In the last stages wine, milk punch, Egg nog. If the patient should be troublesome with night sweats give the Aromat. Sulph. Acid and simple bitters.

Respectfully do I submit this Thesis to the Faculty of The University of Md. — Frederick S. Thomas

To
The Faculties of the
University of Maryland
A Thesis
on the Eye
The anomalies of its
accommodation and refraction
Respectfully
submitted by
Edward P. Dillman
Class - 78

Gentlemen,

In treating of the anomalies, or irregularities of accommodation and refraction, there appear among the rest, two principal imperfections: the one, economy of space; the other lack of origination — a superficial knowledge of the subject understood. Lenses figure conspicuously in connection with our study. When we speak of a positive — convex — lens of 10" focal distance, it is

mean that parallel rays of light, after traversing such lens, will converge to a focus at 9" from it. In like manner, rays returning divergently from the focus, and traversing the lens, would pass out parallel. A luminous point in front of a positive lens, and its focus on the other side, are reciprocally foci, each to each. The same principle holds good with negative-concave-lenses, only their

for use negatives, or magnifying
Snellen test types are
used to test the acuteness
of vision, but they may
also be usefully employed
to ascertain the ranges of
accomodation. The near
point is ascertained by
observing the nearest point
at which one who is sup-
posed to have normal vision
can read a No 1 Snellen
type. To ascertain the
far point, we must use
a large type, for No 1
would not be recognized

the distance, because of the smallness of the retinal images. Test is generally used at 20 feet, for if an eye with normal acuteness will if the refraction be normal see No XX at 20 ft. as clearly as No 1 at one foot. If it does not, there is probably hypopia, and if it see No XX beyond 20 feet, there is good reason to suspect Hypermetropia. The eye being unable to focus minutest rays, we then test the lower numbers at

their adjustable distances until we find the Jaeger's. But a more convenient method is that in which a strong positive glass is employed to read very small type, so that by noticing the distances at which the type is most distinctly read, we may determine whether the eye is Emmetropic, Myopic, or Hypermetropic, and then proceed to ascertain the near and far points from which the range of accom-

relation can be readily calculated. The method is explained as follows: a convex lens of 6" focus is placed before the eye (it may be stronger if must be strong, in order that the battery may command his far point. With the use of both eyes, the horizontal range of the field of vision is 160 degrees; the vertical, which is of equal extent whether one or both eyes be used, is 120 degrees. But it is only in the

centre of this field that the vision is clear, namely, over the space that would contain about four letters of any of Snellen's types is seen from the distance at which the individual letters would subtend a visual angle of 15.00 (within this space, a normal eye should be able to distinguish two points separated by about the sixtieth part of the space itself, or by one minute of angular measurement;

and around it, vision becomes progressively more and more indistinct, up to the limits of the field. The imperfection of visual power on the lateral portions of the retina, as compared with the more perfect sensitiveness of the macula lutea, is not known to most persons, for the rapid movements of the eye, by causing the macula to correspond successively in the

different parts of the field which we look at, are performed so easily and unconsciously, that we are not aware of the fact that we move the eyes at all. The blind spot measures 6° in the horizontal, and 8° in the vertical direction. The two blind spots being on either side of the object looked at, are always out of sight, and therefore out of mind. But all the interjections

of the eye as an optical instrument become comparatively unimportant, in view of the physiological consciousness, and the conditions under which it is excited. For when the eye is emmetropic, and has the normal acuteness, and normal range of accomodation, the constant and harmonious movement of the two eyes keep the macula, or sensitive part, in relation with the points successively

examined, and the slight normal astigmatism is corrected by looking at horizontal and vertical lines, not simultaneously, but in alternating succession. But when the defects exceed a certain limit, they produce not only fatigue, but uncomfortable (it may be painful) vision, which brings about congestion, nervous irritation, and eventually, grave organic changes. The normal astigmatism

referred to above, depends upon the fact that the curvatures of the surface of the eyes are exceedingly irregular, being ellipsoidal, and not spherical, and the different surfaces are not always concentric. Hence few persons can see horizontal and vertical lines at the same time, nor at the same distance with equal clearness.

But the eye can alter its accommodation so unconciously, that the person is not

aware of any change having been made. The maximum of accommodative adjustment, like the maximum of any muscular effort, can not be long maintained without fatigue; and hence no one could read continuously at the near point. It has been ascertained that an exertion of about one-half of the total power of accommodation, is as much as can generally be borne for any lengthened period. Thus, in case of Hypermetropia,

when the focus of horizontal rays would be behind the retina, some effort of accommodation would be necessary for clear vision. Since this requires accurate focusing on the retina, (and of course this effort is increased when near objects are looked at) such eyes are never at rest except when closed, and are excessively strained when looking at near objects. In hypermetropia of high degree, the accommodation is seldom used,

for if 5" to the far point,
it would be evident that
you needed to look at any
nearer point. Accommodation
is equally necessary whether
one or both eyes are used.
But when both eyes are
used, another muscular
effort is also required, called
convergence, by means of
which the axes of both eyes
are directed to the object
looked at, and the image
of the object falls upon
the yellow spot in each
eye. The muscular effort

of the internal Recti, and the visual angle of convergence, increases as the distance decreases. So that in looking at very near objects, the strain on the internal Recti becomes very uncomfortable; and hence Myopic persons are very liable to muscular Asthenopia. Thus the accomodation of the Ciliary muscle, and the converging action of the internal Recti, are excited under similar conditions, namely, wherever we shorten the range

fusion. And these, although they are independent actions, they are so habitually associated that we can not without optical contrivances, exert one without the other. Which by means of glasses we succeed in breaking the harmony of the muscles, the result is uncomfortable or painful vision. Thus, if a person with Emmetropic eyes uses convex glasses of any given focus, (say 18") he can see most distinctly at that

distance, but after a short time the eyes will ache, because the glasses having reached the divergent rays parallel, he relaxes his accomodation while the eyes still converge for 18" distance. He would experience a similar discomfort in looking at distant objects with concave glasses of a definite focal distance, (say 18") for concave glasses giving parallel rays a degree of divergency due to their focal distance, he would have to accomodate

for that distance, while no correspondent convergence is needed. Convergence in the absence of accommodation, and accomodation in the absence of divergence, are equally uncomfortable. A pair of prisms, each of seven and a half degrees angular measurement, placed with their bases inward before the convex lens, or with bases outward before the concave lens, will remove all inconvenience. In the former case they

make the parallel of convergent visual axes to correspond with the relaxed accommodation. In the latter, they make the parallel lines converge to a point corresponding with the imaginary focus of the negative lens, and therefore with the effort of accommodation. In the former they relax accommodation; in the latter they call it into play, but in both, the discomfort and fatigue resulting from the dis-arrangement of the

natural harmony between the accommodation and convergence, are relieved. Excessive nervous and muscular effort produce retina hyperæmia, followed by passive congestion, and mental anxiety often aids those physical changes in sowing the seeds of disease. The power than to overcome the effects of moderate Hypermetropia, or Astigmatism, will depend upon your general muscular vigor.

An
Inaugural Dissertation
on
Indigestion

Submitted to the Examination
of the
Faculty
of the
Maryland University,
for the Degree of
Doctor of Medicine
By
— Frank W. Lewis —
of
Virginia —
February 14th
1878

# - Indigestion -

The occurrence of this affection is so frequent, and attended with so distressing a train of symptoms, that it has the strongest claims upon the attention and sympathy of the Physician. The habitual dyspeptic is indeed truly miserable, His sallow and anxious countenance, his irritable and sullen taciturnity, his aversion to social enjoyments, and the occasional overwhelming despondency

of mind, show him to
be the prey of deep and
harrassing sufferings.
of which none but those
who have experienced them,
can form any adequate
idea. Common however
as Indigestion is, and
serious as are its conse=
quences upon the health
and happiness of man,
there is perhaps hardly
any other malady,
which man is heir to,
that is so commonly
misunderstood and
consequently so commonly

Mismanaged, I may state in the outset of this Thesis, that in order to obtain a correct view of the pathology of Indigestion, and of the true indications of its remediate management, it is necessary to be acquainted with the physiology ~~of~~ of the pro=-cess of digestion, and I can only in this short paper, refer to the prominent and essential circumstances in relation to the subject. It appears then to me.

That the following conditions are essential to the regular and healthy performance of the function of digestion.
1st A due tone and peristaltic action of the muscular coats of the Stomach, in order that the food may be uniformly acted upon by the parietes of this organ, and as it successively undergoes Chymification - when it is in contact with the Stomach - be pushed

forwards towards the pylorus into the duodenum, and 2nd The regular secretion of a sufficient quantity of healthy gastric juice. That the gastric juice is really the solvent which converts the aliment into that pultaceous mass called Chyme, and that therefore digestion so far as Chymification is concerned, is chiefly affected by the agency of this fluid, is I think established beyond all dispute.

The experiments of Spallanzani and others have placed this physiological fact beyond all reasonable doubt. It does not appear from experiments on this subject, that the bile has any material agency in the process of chymification. According to experiments performed by the Author above named, in relation to this point, Chymification appears to go on perfectly in animals after the biliary duct has been tied.

It has been assumed as a pathological axiom, that the functions of secretion can never be deranged without the existence of irritation in the secreting organ. Irritation of vascular extremities that secrete the gastric fluid, exists therefore in every case of dyspepsia or indigestion. The causes which most frequently give rise to this irritation, are over-distension of the Stomach and indigestible and irritating articles of food,

The manner in which food of this kind produces the irritation in question, may be readily understood. When food resists the digestive powers too long, besides direct irritating impressions upon the Stomach, it enters more or less into the fermentative process and evolves acidity and gas, which increases the irritating qualities of the contents of the Stomach. Besides these consequences of too long a retention of imperfectly digested

food into the stomach, the muscular powers of this organ will be diminished by the long continued exercise, to which it is subjected, as well as, by the overdistension and irritation caused by the gases. In consequence of this indigestion, portions of half digested food will pass into the duodenum which being altogether uncongenial to the sensibility of this organ, will give rise in it to irritation,

spasm and pain,
and thro' sympathy
to functional derangement
of the Liver, when this
state of things is produced,
by some error in diet,
or whatever cause may
be, assisted perhaps by
general causes — Even
the ordinary diges=
tible and plain
diet taken in health,
will not only sustain
it, but increase its
violence, if favored
by other circumstances
of a debilitating
character,

Protracted grief and despondency seldom fail to weaken the digestive powers, and to bring on ultimately, confirmed and unyielding indigestion. Protracted and intense application of the mind, when attended with a sedentary mode of life, is another of these causes which act thro' the medium of the general system. Such indeed are the sympathetic relations of the Stomach with the

whole and every part of the human organism, that its functions become disturbed by whatever causes, either general debility or organic disorder of the principal organs of the body. But it is now conceded that by far the most common and powerful causes of indigestion, are those that act directly upon the nervous extremities of the mucous membrane of the Stomach, whatever is calculated to cause permanent irritation of this membrane, has a direct tendency to produce this disease.

The principle agency of the Bile in digestion, seems to be, to render the fatty substances of the Chyme soluable in the Chyle and it is said to be, the fat or oil thus suspended, by means of the alkaline properties of the bile, that gives to Chyle its milky color, when the common duct is tied, Chymification goes on regularly, but the Chyle in the lacteals and thoracic duct is transparent and of a yellowish hue.

It has been stated that the immediate cause of Indigestion: consists in a vitiated condition of the Gastric juice and deficient or irregular action of the muscular coats of the Stom=-ach, now as both muscular action and secretions are under the influence of the nervous power, it is plain that, whatever causes an irritation or morbid excitement in the ner=vous structure of this organ, must necessarily tend to derange the healthy

performance of these two functions, accordingly every thing which is capable of causing indigestion, does so, either by irritating the regular supply of nervous influence to the stomach, or by irritating the nervous extremities of the mucous membrane of this organ; or by producing both these effects simultaneously.

Of the former causes, namely those that interfere with the regular transmission of nervous influence

to the Stomach, are the mental Emotions. It is surprising, how suddenly any temporary mental agitation depresses, nay, often wholly suspend for a time, the keenest appetite and powers of digestion. These temporary depressions of appetite and powers of digestion from sudden emotions of the mind, may be converted into protracted and unmanageable cases of dyspepsia, while the mental perturbances are of a chronic & depressing character.

Some authors think, eating too much, is one of the most common causes of dyspepsia, and there can be no doubt as to its decided tendency in this way. It is probable, however, that it is not so much by an overdistension of the muscular coats of the Stomach, which a super abundance of ingesta produces, that indigestion is caused, as by the mere excess of food beyond which the Stomach is capable of digesting.

Suppose the utmost power of the Stomach be capable of digesting 16 ounces of food at a time, it is manifest if 20 ounces be taken, some of it will remain in an undigested state in the Stomach, a longer time than is compatible with a healthy condition of that organ, this portion will therefore irritate the gastric nerves, enter more or less into a state of decomposition, and give rise to deficient

or vitiated secretions in the Stomach, as well as, debility of its muscular tunic.
The effects which follow, an undue reception of food into the Stomach, beside those of mere over-distension, do not differ from those that are caused by indigestible articles of diet. A small portion of food which resists the digestive powers, is capable of bringing on violent dyspepsia, by remaining

In the Stomach beyond the period which is allot=-ed by nature to the process of digestion, and becom=-ing thereby a source of irritation in the manner already mentioned. Just so does it happen when the portion of food how=-ever digestible, is greater than the Stomach is capable of digesting at a time, for the portion which remains in an undigested state, and which the Stomach is no longer capable of

Converting into Chyme, will act like so much indigestible food, and give rise to the distressing consequences which often result from such articles of diet. The causes which most commonly occasion the reception of more aliment into the Stomach than its powers are capable of converting into Chyme, are 1st. Eating too fast. The appetite subsides only in proportion as the gastric juice

Becomes mixed, and as it were neutralized by the food. When we eat rapidly, time is not given to the gastric liquor to combine with that part of the food which is presented to it; the sensation of hunger therefore continues, and we continue to eat, until more food is taken, than the greatest quantity of gastric juice, the stomach is capable of secreting, can digest, and imperfect

Chymification is the result, whereas, when we Eat slowly, so that proper time is given for the combination to take place, the Appetite abates before the Stomach is over-charged. Every one has occasionly observed, that if his meal is interrupted for ten or fifteen minutes after having eaten perhaps not one third of the usual quantity, he finds that he is Satisfied.

The gastric juice has had time to combine with and be neutralized by the food he has taken. 2nd Imperfect mastication acts in the same way, and as it is always connected with rapid Eating, constitutes greatly to this latter cause 3rd The use of Condiments, stimulating drinks and high seasoned food. These excite an artificial appetite, and keep up the desire for food, longer

than it would be sustained by the impressions simply of the gastric fluid. The free use of very cold or warm drinks, particularly during meals, tends much to weaken the digestion, and to aid other causes in the production of dyspepsia. By drinking freely, the gastric fluid is so much diluted that its powers are weakened, and of course the process of digestion

more or less retarded.
We have stated above that a tardy peristaltic action of the muscular coat of the Stomach, by which the digested portions of food are too long retained in this organ, is very often the cause of dyspeptic symptoms. We are however persuaded, that the reverse condition also very frequently obtains in cases of painful and imperfect digestion - Namely, that

The food is too rapidly hurried thro' the Stomach into the duodenum, before it has had time to undergo the full action of the Gastric fluid. This occurs most commonly in such cases as are attended with a high state of irritation, or a sub-inflammatory condition of the mucous membrane of the Primae viae.

That a morbid peri-staltic activity of the Stomach often exists in

Dyspepsia, may be in=
ferred from the conse=
quences which are
known to result from
high irritation of the
mucous membrane of
the intestinal tube.
The phenomena of Indi=
gestion in aggravated
cases, also confirms
the correctness of this
opinion. Authors tell
us it is a common
circumstance, for ~~in~~
instance, to hear dys=
peptics complain of a
sense of fullness in the

Stomach after eating a small quantity of food. But not withstanding this sense of repletion, they soon complain again of the customary sense of emptiness in the region of the stomach, and crave for more food, In such cases, it is to be observed, that the chief distress or uneasiness is not experienced in the stomach, but rather in the region of the duodenum.

In some cases the food is rapidly hurried off by the bowels in an imperfectly digested condition, under very severe suffering from tormina and flatulent distention of the bowels, In a practical point of view, it is of great importance then to bear in mind, that dyspepsia may depend on the distinct morbid condition of the digestive organs; Namely 1st In functional debility of the Stomach from

Deficient or vitiated secretions of the gastric fluids, and muscular inactivity, independent of vascular irritation or inflammation. 2nd On deficient or vitiated secretions of the gastric fluids, with vascular irritation or chronic inflammation of the mucous membrane of the Stomach and duodenum, and a morbidly increased peristaltic action of these organs. —

The characteristic symptoms of the former grade of indigestion, are poor appetite, tongue covered with white fur; absence of epigastric tenderness, except in flatulent distentions: costiveness; acid eructations: absence of febrile irritation of the pulse and the ability of bearing lean and tender animal food, better than vegetable and farinaceous articles of diet. The phenomena which characterizes

The second or inflam=
matory grade of the
disease, are tenderness
on pressure of the Epi=
gastrium, a red, chap=
ped, glossy appearance
of the tongue, small
and accelerated pulse
and febrile exacerbations
towards evening, emaci=
ation; irregular action
of the bowels, with
frequent attacks of diar=
rhoea; protracted pain
during the process of
digestion, anxious Expres=
sion of the Countenance

and inability to bear animal food and stimulants. It appears that the irritation or inflammation of such cases is seated in the mucous membrane of the pyloric extremity of the stomach and the duodenum, connected with a congested state of the Liver, the left lobe of which organ is most commonly affected in indigestion.

In the treatment of this disease (as in most others)

The first and by far the most important indication is the removal of the causes, and the measures requisite for this end, Embrace the regulation of diet, moral as well as physical. The most obvious rule in relation to diet, is to avoid all substances of difficult digestion. Specifications in the treatment of this disease are only correct in general, for the peculiarities of individual Stomachs

are so numerous, that an article easily diges= ted by one, will often prove almost indigestible by another, and vice versa. In all cases of dyspepsia an undeviating observance of suitable regulations in regard both to quantity and quality of the ali= ment and the manner of taking it, is absolutely indispensible to success in the treatment of this disease. The patient should be directed to masticate well and slowly;

To take his meals at regular hours; to eat no more at a time than is just sufficient to sustain the power of the system; to drink but little during and for a short time after taking food, and avoid taking any active exercise during the first stage of the process of digestion.

Respectfully submitted to the Faculty of the University of Maryland, By

Frank M. Lewis.

— of Virginia —

1878.

physiology, pathology
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and accept, that the

entific practice

diagnosis is one of the two essentials [illegible] that none cannot be controverted; therefore, [illegible] I asked what should have [illegible] early engage the attention of the [illegible]

[illegible]

[illegible] and every branch of medicine. However scientific [illegible] may be, however [illegible] his powers

eminent diagnostician he must
be a good [illegible]; the sciences of
[illegible] memory, or one by bad reasoning
will arrive at [illegible] proper diag-
nosis. Neither should one imagine
that diseases are to be recognized by
intuitive perception, although
there are [illegible]
[illegible] hit
[illegible] hit;
if such an idea is absurd we
reject that there is nothing
utopian in the practice of medi-
cine. Indeed the mental qualifi-
cations of the skilled diagnos-
[illegible] do not differ essentially from

lion, sound judgment-
cases. He who does
amount of atten-

true suit that the
standing of the hy-
pothesis is
st step towards it

doctor of divinity who is thorough,

is well calculated to impress
hearers, so is the doctor of medi-
cine rationally to treat pneu-
monia.

The insatiate ambition to advance
our such plant the immense desire
to relieve those by whom we are

R having the most latitude in the

Although special issue

done accused in more than one manner

[illegible] distinguished [illegible]

[illegible] as [illegible]

[illegible]

[illegible]

[

[illegible]

[illegible] medical evidence for assistance in diagnosticating disease. The nasty formation of such a opinion is readily perceptible when we banish all prejudice and calmly consider the objection. It seems to me that such an opinion appears to some to be tenable, on account of its seeming a[illegible] to that mild [illegible] complicated and [illegible] medical instruments. Such an argument is devoid of perspicuity, to say the least; the foundation on which it is based is insecure; the [illegible] does not exist. Were this

[illegible]

[illegible] must be able to adapt each step of his proceedings to the peculiarities of the case in hand. He must see to it that will do his bidding [illegible]

[illegible]

[illegible] and not the snapped finger. [illegible] at this moment, [illegible] the inquiry displayed [illegible] vehemence, should be shown [illegible]

exists in the man and not
instrument. By using auto-
matic instruments, the operat
important a score, assumes
those, who have invented the
ments, after having found
em. It affords me pleasure to
remember that this is entirely dif-
ments used in diagnosis, in the em-
ployment of which accuracy is

[illegible] accurate [illegible]

[illegible] we substitute the accurate [illegible] the inaccurate sense of touch. An aphorism exists to this effect, [illegible]

[illegible] at part which our sense of touch should take in our [illegible]

This instrument is extremely use-

[illegible] followed [illegible] the fact [illegible] the o-

N. P. Nichols.

An Inaugural Dissertation

on Pneumonia

Submitted to the worthy Faculty of Physic of the University of Maryland for the degree of Doctor of Medicine

Joseph H. Powers

Definition, Synonymes of the Entire
of the lungs.

Varieties: Acute, Subacute and Chronic
Conditions and Causes. The first most
frequent, which attracts the attention
of the patient is a chill, or stage of
depression, followed soon by fever, with
oppression in breathing, dull pain in the
chest and sometimes short cough.
Delirium is common. Temperature of
body is high, especially in fatal cases
of the stage, sometimes in the morning
reaching 104° or 105°. Rahr in the Avella
Scientific Bulletin, as in other fatal

affection
of Urea but deficient in the Chlorides.
In the middle period of the attack &
Convalescence commenced about the 3rd or 4th
days. The pulse being accelerated
upwards and blood issued spontaneous
ly the tasty colored urine of Rheumatism
In this in excess of Chlorides of Sodium
will be found by testing with nitrate of
silver. The length of the attack is so
well reached between the 2nd and 4th days
after which the temperature falls under
favorable cases all the symptoms subside.
In these observations in testing and
in treatment, enough dyspnoea, and exhaus
tion necessitates a abundant alkali

[illegible] Month [illegible] the [illegible]

[illegible] [illegible] [illegible] [illegible]

[illegible] [illegible]

[illegible] [illegible] cluding Clinical History.

[illegible] Stage. Engorgement. 2nd Stage. Red

[illegible] [illegible] Stage. Gray Hepatization.

[illegible] division of the career of Acute Pneu-

monia into stages, is based upon differ-

ences as regards its anatomical char-

acters at different periods of the disease.

The 1st stage embraces the period dur-

ing which the affected lobe is in a

state of active congestion or engorgement.

The disease is considered, as passes

into 2nd Stage, when the affected

lobe, in a greater part of its bulk,

[illegible]

[illegible]

[illegible]

The duration of each of these stages varies much in different cases. The stage of engorgement may last but for a few hours not unfrequently. This stage does not extend over 24 hours. But sometimes the solidification occupies two, three or, days. and in some cases it occupies a longer period, the average duration might be said to last from 24 to 48 hours. The stage of solidification may also be of short duration. In the majority of cases this stage lasts from 2 to 4 days. The stage of resolution is still more variable. It is very rarely the case. that the resolution is completed in less than 3 or 4 days and usually it takes longer.

recovery. Many days are requir[illegible]
the normal condition of the lungs [illegible]
restored. In the great majority [illegible]
Acute Pneumonia commences with a chill
The thermometer at this period shows
increase of temperature although [illegible]
exists as a subjective symptom. The in-
vasion is usually abrupt with few or no
premonitions. The attack is apt [illegible]
during the night. Coincident with or
immediately following the chill is the
occurrence of pain. The pain is usually
referred to a circumscribed space at or near

[illegible]

[illegible] less prominent. The cough [illegible] accompanied by expectoration [illegible] movement occurs with the invasion [illegible] together with [illegible] The pulse varies much in [illegible] different cases, ranging [illegible] per minute. More or less hard and full. A sudden increase of temperature denotes the [illegible] of a new lobe or some intercurrent affection. The [illegible]

[illegible]

[illegible]

portion of lung affected. [illegible]

cases in different stages. [illegible]

stage of solidification. The symptoms in

[illegible] cases. [illegible]

cease or diminish. Cough and expectoration

continue. But the cough is less frequent

and painful, and the expectoration is

effected with more facility. The matter

expectorated loses its rusty appearance,

becomes opaque, less adhesive and more

abundant. It is derived principally from

the Bronchial mucous membrane of the

lung affected. The febrile movement continues.

17

[illegible]

[illegible]

[illegible] denote a recession [illegible]

[illegible] diminish [illegible]

cease. The cough and expectoration become less and less. The respirations resume their normal frequency. The appetite returns. The strength is [illegible] and convalescence is declared.

If the disease passes into the stage of [illegible] the prognosis tends to a favorable course. The pulse becomes more frequent and feeble. The expectoration is abundant and purulent. The strength of the patient gradually but surely [illegible] takes place by [illegible]. The [illegible]

[illegible]

[illegible] expectoration

flow of blood in the right cavities of heart. Albumen in abundance in the urine, denotes coexisting disease. ——

Delirium not infrequently occurs in this fever. [illegible] may be mild in the character, but sometimes very active. The patient attempting to get out of bed, resisting all efforts of restraint. or it may be of a low muttering form, not frequently seen in Typhoid fever. It is evidence of the gravity of disease, [illegible] as to its prominence, that is, active and exciting. A circumscribed redness of

[illegible]

[illegible]

[illegible] monia. It is not uncommon for an herpetic eruption to appear upon the face especially around the mouth. Slight jaundice is sometimes found but can be considered as [illegible] [illegible] of [illegible] is a phase of the term typhoid pneumonia. This term denotes the general symptoms, relating to those of typhous fever of which the most prominent is the following [illegible] [illegible] decrease of the temperature, sometimes [illegible] [illegible] [illegible]

[illegible]

[illegible]

able course. is usually [illegible]

[illegible] These differ in the three stages. In the 1st stage they are moderate dulness on percussion over the affected lobe and on auscultation the 1st sounds are [illegible] the [illegible] crepitant rale. In the 2nd stage, decided dulness on percussion, no rales but in its stead bronchial respiration and [illegible] with increased vocal fremitus. In the stage of softening or [illegible] of [illegible] or 3d stage dulness on percussion and more crepitant or mucous rales. When resolution follows the 2nd stage or

[illegible] of secretion of the mucous
[illegible] [illegible] are [illegible]
tion and then the fulness of secretion
on percussion also gradually disappears
Pathological Relations. Lobar Pneu-
monia is an inflammation affecting
a structure reckoned as a mucous tis-
sue but differing materially from the
membrane lining the bronchial tubes
in respect to composition and function
The exudation in this inflammation
does not produce new tissues and a
[illegible] which is not
expectorated but removed by absorption
and sometimes absorbed with a
rapidity. The exudation in Pneumonia

[illegible]

[illegible] pulmonary

[illegible]. Causation. — Statistics

show that no period of life, involves

either decumbent bronchitis, or a notable

affinity to Acute Pneumonia. It occurs under

2 years of age, but not frequently. Also

[illegible] and above it. No particular call

ing predisposes to this disease, but out

door laborers are more prone to become

affected indoor laborers. Such as are

[illegible]

influences pertaining to other pulmonary

affections. Facts show that Bronchitis

does not tend to eventuate in Pneumonia

[illegible] Pleuritis, Cata-
rrh, Pulmonary affections, Emphysema, Asthma.
Chronic Pleuritis are seldom frequently asso-
ciated with Pneumonitis, as to show that
instead of investing a predisposition
to this disease, they afford more or less
protection against it. Pneumonia is
not often developed in persons afflicted
with organic affections of the heart. In
a large proportion of cases of Pneumonia
the disease is developed, spontaneously,
that is it is not traceable to any ex-
citing agency. The disease may be produced
[illegible] by injuries inflicted
on the chest.

Diagnosis.— The only affections [illegible]

Pleurisy, Bronchitis and, Phthisis

From Pleurisy it is known by the absence of the sharp pain, and by the [illegible] of [illegible] sounds [illegible] of [illegible]

From Bronchitis, by the dulness on percussion, [illegible] respiration and bronchophony. From Phthisis, by its sudden onset, fever, exhibition [illegible] as well as by the acute violence of the attack. [illegible] Lobar Pneumonia of one lung in a young and previously healthy person, eighteen [illegible] favorable circumstances, and prompt vigorous treatment, always to be recovered from. Even if more than one lobe be in-

[illegible] and uncomplicated, a favorable ter-
ation may be expected in a subject not
enfeebled by age. The gravity and dan-
ger in this disease, consists, not so
much in the disease per se as from co
existing affections. Occurring in persons
affected with organic disease of the heart.
It is yet a serious fatal, or at least a serious
affection. For the system is hungry, or
and double pneumonia is so, it all serious
of life. Though good recoveries do occur.
There is a liability in this disease to
a fatal accident, viz. the coagulation
of fibrine (Hydrinosis) in the right cavities
of the heart. This is no doubt an ex-

[illegible] not [illegible] [illegible]

[illegible] The complications which are apt to render the disease fatal are Pericarditis, Intermittent Fever, and Delirium Tremens. The [illegible] and [illegible] from these complications are of course greater if the disease invades more than one lobe. Symptoms which are unfavorable as to Prognosis are the following:- The abundant, frequent expectoration, frequency of pulse, great frequency and labor of respiration, lividity of the face & body, tympanitic [illegible] commonly known as the prune juice expectoration, active delirium, low muttering delirium with prostration, and subsultus

[illegible]

[illegible] in cases of [illegible]

[illegible] the lower [illegible]

lobe of right lung is almost always the seat of the disease. Should death take place in the early "red" in the 1st stage, the lung would be found somewhat swollen, dark red, and filled with blood or bloody [illegible]

It will still float in water. Although here is blood contained in lung. In the 2nd stage of hepatization the lung is no longer spongy but presents considerable resistance to the touch. Although a finger may be read by the lung [illegible]. When entirely hepatized it will not float in water. The air being [illegible]

[illegible]

[illegible] Dr. [illegible] Dr. [illegible]

on the hypothesis of the [illegible]

[illegible] of [illegible] [illegible]

[illegible] [illegible] [illegible]

[illegible] [illegible] [illegible]

[illegible]

[illegible] admitting that they sometimes succeed,

[illegible] probability of success is so small as

not to warrant their employment in all cases

as regards blood letting. its employment is

to be regulated by the consideration of

different cases with which you have

to contend. the recommendations which

warrant its employment are, high grade

of inflammation, the pulse more or less resisting

compressible, and the condition of plethora

or at least a robust constitution. It

is indicated whenever the febrile move

ment is not marked, when the pulse

is [illegible] and weak, or if the patient

is [illegible] a feeble constitution.

[illegible]

under similar circumstances. But it is
feeble & must be watched. Aconite is an
effective sedative remedy, and is to be pre-
ferred to the sedatives just named, when-
ever it is desirable to avoid the depress-
ing effects of the other [illegible]
be given during the [illegible] stage of [illegible]
in doses sufficient to relieve pain and
tranquillize the system. Tonics are in-
jurious, but dry cups, sinapisms, and
[illegible] liniments may be employed. Some re-
commend cold ablutions to the chest
[illegible] must be used with
great care. If patients complain of the

[illegible]

Lesions in the disease, measures must be used to promote absorption, and support the powers of the system. The oiled [illegible] jacket has been employed by and with advantage. Iodine has been employed as an application to the chest. Thinn can be used in this the [illegible] [illegible] [illegible]

[illegible]

[illegible]

[illegible]

[illegible]

Resolution will be sure to begin and con-
tinue if the life of the patient be suf-
ficiently prolonged. The danger is not
[illegible] of [illegible]
[illegible] of the vital powers of the
system before resolution begins. [illegible]
for example, it is to be [illegible]
[illegible] we will [illegible]
[illegible] the [illegible] which is
[illegible] of metabolic [illegible] is to be [illegible]
[illegible] they are [illegible] [illegible]
[illegible] to be [illegible] of [illegible]

small doses, the effect is [illegible]
and the quantity increased in proportion
to the severity of the disease.

Stimulation is an essential part of
the treatment of typhoid.

It is as important to nourish patients
affected with typhoid as it is to
feed with fever, or any disease where
there is danger from the failure
of the vital powers.

Milk and farinaceous substances
[illegible] broths, should form the diet

[illegible]

There is no danger of its doing any harm but on the other hand great good as much as a gallon or [illegible]

[illegible]

[illegible]

[illegible]

A Thesis
on
Typhoid Fever.
by
J. H. Lover.
W. Va.
A. D. 1878.

# Typhoid Fever.

The name typhoid signifies typhus like, and is objected to by a great many authors, the cause being the confusion it creates; for it is customary to many, to apply this name to a condition or state which is incidental to many diseases. For this reason it is called by the German writers abdominal typhus and by Prof Geo B. Wood enteric fever. But Murchison objects to these, because they are apt to convey the impression that the fever is the result of these lesions and

proposes the name pythogenic fever, which name implies the supposed source of the disease to be putrescent matter. But still this is objected to on the ground that his doctrine is hypothetical.

As to the contagiousness of this disease it is doubted by some physicians; but I hope not by the majority. It certainly is more contagious in the rural districts than in the cities, the principal reasons being the hygienic advantages the later have over the former, the most paticular ones and undoubtedly of great importance are the

water supply, water closets, waste pipes, and the great sewers to convey all effete material immediately from the house and out of the city. In the rural districts they have nothing of the kind. There they depend upon wells and springs for their water supply. They have no waste pipes nor sewers to convey all waste meterial away from the houses, consequently they are compelled to use common privies for the place of deposit, and it is common to see both well and privy in the same yard. Knowing that this is true it can easily be understood

how the water can become infected with poison from this or any other disease, and spread itself over a whole neiberhood maybe visiting every family. Milk is another source by which this poison is oftentimes spread and should be watched with great care. It is supposed to be caused by the cows drinking water or slops that are infected with the poison. Statistics show that the majority of epidemics are spread in this way, for it is to be remembered that the contagious power of this disease belongs chiefly and especially to the discharges from the bowles

caused principally by the ulceration of the intestinal glands so characteristic of typhoid fever. So dangerous are these discharges that the best possible care should be taken of them. Disinfectants must be freely used before they are taken out of the sick room.

Mr Hartshorne says "No locality limits it, all climates allow it, from the Artic regions to those bordering on the tropical, from the cities of the east, to the Rocky Mountains. From all this we are made to belive that typhoid fever originates from some specific poison.

So imperceptible is the commence

ment of this disease that patients are unable to fix an exact date of their ailments, sometimes they are not sick enough to take to bed for some days or may be two weeks, again in exceptional cases the attack is abrupt, the patients taking to bed at once, with a chill, vomiting, purging and great prostration.
Among the earliest and most important symptoms are chills or chilly sensation, followed sometimes by perspiration, frontal headache, pain in the back and limbs, noise in the ears, loss of appetite and progressive debility. Epistaxis and Diarrhea are two diagnostic

points in typhoid fever.
The countenance and general aspect of the patient requires a passing notice at this time. The face is usually more or less flushed in the early period, afterwards the countenance presents a dull or listless expression; and in severe cases there is a lack of any natural expression, and there is also an appearance of stupidity. This corresponds to the gravity of the case. The nervous symptoms is very important and should be watched with great care, during the first week or ten days. pain in the head is complained of, not sharp and stinging, but dull and

continuous, gradually becoming less and less and finally ceases during the last of the second or the begining of the third week. The patients sleep is dozing and disturbed with startling dreams. His respirations are sighing and spasmotic and at last delirium presents itself, about the second or third week. This differs in degree of severity and is usually worse at night. At first it may be slight, the patient muttering or talking incoherently, at other times it is very violent, the patient if not watched will often get up, put on his clothes

and roam around. "This persisting active delirium requiring restraint is an extreamly unfavorable symptom."
The tongue generally presents a morbid appearance and is always a valuable sign both in regard to the prognosis and treatment. At first it may be simply frosted or covered with a thick whitish, yellowish or brownish coating, or in further advanced cases it varies in appearance, it may become reddened, smooth, glazed, or hard and dry, called by some the brick tongue. This later shows itself very

prominently in the very severe cases, when the patient lies in the state of coma-vigil, breathing with his mouth open. The surface is desiccated, cracked and often deeply fissured. "Exfoliation of its coating and its surface becoming moist and of a natural color, betokens convalescence."

The characteristic eruption appears generally from the sixth to the twelfth day. It consists of small round rose colored papules, slightly elevated and disappear completely on pressure, resuming their natural appearance when the

pressure is removed. It first appears on the thorax the abdomen and the back, sometimes on the limbs but rarely or never on the face, each spot lasts from three to four days; while fresh ones come out every day until about the last of the second week, when they disappear altogather, leaving no pit or scar behind them. Very often it cannot be discovered during the attack and is never present after death. Dr Watson says "This eruption of lenticular spots, in successive crops, is highly diagnostic of typhoid fever."

The temperature is a very important item in the diagnosis of this disease and should be carefully watched. It begins to rise about noon, and attains its maximum between that and midnight. After this time it commences to fall, the lowest point being usually attained between six and eight in the morning. In uncomplicated cases these daily remissions are almost invariable the difference between the morning and the evening temperature varying from one to two or three degrees. The rise begins from the first day of illness,

and gradually increases by daily waves, until, on the fourth or fifth day, or about the end of the first week, when it attains its greatest elevation, which varies in different cases, between 104 & 106 degrees. From this period up to about the twelfth day, there is but little change. Then if the case be mild, the morning temperature becomes lower and of longer duration, to be followed shortly by corresponding falls in the evening, and as gradually, as convalescence becomes established the morning and evening temperatures approximate and

come normal. If the case be severe and convalescence be delayed, the temperature still continues high, and the morning remissions become often less marked than they had been. Again if in the course of the attack serious complications arise, the usual course of the thermal variations is modified.
Profuse diarrhea, epistaxis or intestinal hemorrhage, causes the temperature to fall; as also does the condition of collapse.
Pneumonia causes it to rise, and modifies its diurnal variations. Sometimes it arises before death to 108 or even to 110 degrees,

independently of complications.
It is difficult to fix the exact duration of this disease on account of its insidious mode of onset, the presence of complications and the liability to relapse, but the average duration is generally put down from twenty to thirty days.
The prognosis should always be guarded, even in the mildest cases, and not until convalescence has quite taken place, the temperature normal, and the abdominal symptoms have entirely disappeared, should the patient be considered out of danger.
Death is rarely due to the intensity

of the disease, but to complications or accidents, as pneumonitis, peritonitis, intestinal hemorrhage, or perforation of the bowel. In the majority of cases the mode of dying is by asthenia.

As long as the ataxic symptoms are not marked, and the adynamia not great, the pulse full and strong, with no serious complications, a favorable prognosis may be entertained.

This affection is always attended with characteristic anatomical lesions, affecting the peyers or agminated glands of the small intestine.

These lesions consist in an apparently simple hyperplasia of the glandular elements, in virtue

of which the organs undergo rapid enlargement, and then either slowly subside, reverting to their normal condition or undergo softening, suppuration, ulceration, or gangrene. It is said that they are as characteristic of this disease, as the eruption is of small pox.

Our chief aim in the treatment of this disease must consist in the guarding against, and the prevention of the many sources of danger which attend it, and in relieving symptoms as they arise; for it is self limited, and the treatment required in ordinary cases is simple. It should be of a sustaining nature, both as regards diet and therapeutical agents.

Any untoward symptom should be

promptly met by appropriate measures.
All food must be liquid. Beef tea, milk, rice or barley with milk, should be given from the first.
In the mild form alcoholic stimulants may not be directly indicated, but may be given in the form of Sherry wine.
Wine whey, milk punch bring very good, but in the severe forms, with prostration, dry furred tongue quick stringy pulse, more decided stimulants must be given, and at regular intervals, in the form of brandy diluted, carbonate of ammonia, turpentine, musk &c.
In the first week or ten days of the attack the nervous symptoms are very marked, Headache, sleeplessness and delirium are the most important.

The agents to be used in these cases are, Bromide of Potassium, Hydrate of Chloral, and Opium, in some form, Dover's Powder being very good, since it allays the nervousness, produces sleep and quiets delirium if present. It will also controll or subdue the diarrhoea that is dreaded by all. Aconite and Quinia are the most reliable agents for the reduction of temperature, the former is best given in one or two drop doses ever quarter or half hour, when the nurses are reliable. The mineral acids are very potent agents indeed and deserve great credit. The best I think is the nitro muriatic or the aromatic Sul. An excellent preparation consists of the aromat sulp acid, and Quinia combined, given ever four hours. When there

is excessive tenderness in the right iliac region, abdominal tympanitis, and a dry furred tongue. Turpentine must be given internally in from 5 to 20 drop doses, every 4 or 6 hours, while stupes or turpentine cloths be used externally on the abdomen.

I have said nothing in regard to purgatives, for the reason that it is the subject of much discussion, some of our best men use them all through the attack, while others equally as intelegent, use them only at the commencement, and have equally, if not better results. Castor oil or calomel seems to be preferred.

The last but not the least is the observance of hygiene. Free ventilation, the removal from the room of all

unnecessary articles. The free use of disinfectants, especially in regards to the stools, the water closets, the drains around the house; in fact any place where disease is liable to originate.

James Hurst. Love.
Grafton
Taylor Co.
West Va.

Baltimore,
Md
Feby 12th 1878.

# Urine.



There are in the lumbar region of the human body, two little organs of elimination, called the Kidneys. These bodies weighing about five and a half or six ounces; during the somewhat life of the individual, perform their unremitant labor of separating from the circulatory system that fluid known as the urine.

The urine takes from the blood in the cortex of the Kidneys, trickles down through the pyramids of the medullary portion, through the infundibula into the pelvis; thence it is conducted by the ureters into the bladder, the organ

intended for its reception and collection. When its accumulation excites the desire to void it, it is ejected through the urethra by the contraction of the Diaphragm, the Abdominal muscles, and the muscular fibres of the bladder itself.

In health we find the urine thus expelled, a light straw colored fluid having a specific gravity ranging from about 1015 to 1020. It has a slightly acid reaction, a peculiar odor, and saline taste.

If a clean glass vessel containing fresh healthy urine be held between the light and the observer,

a faint, scarcely perceptible cloudiness may be seen, this is due to mucus floating in the liquid.

Urine should, as we have before said, be of a straw or citron color. This shade is due to a pigment called Urohaematin. The base of this substance present, this base is the fluid.

Blood and pus mixed with urine communicate their respective colors. Certain organic and mineral substances possess a similar power; for example the fruit of the Indian fig colors the excretion as red as blood; And it is said that Cantharides will produce

(Dunglison's Dictionary Page 411.

the same effect.

Besides other constituents normal urine contains Urea, Uric acid, Hippuric acid, Alkalies, phosphates and sulphates and extractive matter. Perhaps the simplest test for Urea is to place some filtered urine in a watch crystal, slowly evaporate it, and add a few drops of strong nitric acid; a crystalline deposit of the nitrate of Urea is speedily formed, and if this be examined under a microscope delicate six sided plates will be seen piled up, upon each other.

Chemistry affords us many simple & reliable tests by which,

the ingredients of urine can be detected. The Microscope, and the spectroscope are also very valuable in the examination of urine. Amongst abnormal constituents Albumen and Sugar are the most common. When urine is suspected of containing Albumen we take a small quantity in a test tube and boil it. If turbidity takes place it will be due to either Albumen, or a deposit of the earthy phosphates. Let a little Nitric acid now be added, and should the cloudiness be due to the phosphates it will quickly disappear, while albumen, will remain unaffected.

The pathological conditions in which Albumen is found in the urine have been thus grouped. 1st In Acute or Chronic Brights disease of the kidneys. II In Pregnancy and the puerperal state. III In febrile and inflammatory diseases. IV In impediments to the circulation. V In a hydraemic and dissolved state of the blood. (Dr Roberts Practice, Page)

Diabetes Mellitus is a grave disease in which sugar is found in the urine. To the eye saccharine urine presents no marked characteristic. The Urinometer shows a high specific gravity; sometimes as high as 1035.

The tests for sugar are numerous. Moore's, Trommer's, and Fehling's are perhaps most frequently used. For the last Prof. Flint directs that thirty minims of a solution of the sulphate of copper be placed in a test tube or flask, and that to this be added thirty minims of a sol. of the neutral tartrate of Potassium, then ten fluid drachms of caustic soda; boil the mixture and add the suspected urine drop by drop. If sugar be present a brilliant red or yellowish opaque precipitate will be formed. (Flint on Urine)

The fermentation test is simple, and if good yeast be added to

quite reliable.

It has been remarked that a saccharine urine is shaken it retains its froth for a much longer time than does the normal liquid. The treatment of this serious condition is chiefly dietic, avoiding food containing sugar, and those are convertible into sugar in the system, are to be as far as possible abstained from

A curious kind of urine is occasionally met with, termed Chylous. This variety has an opaque appearance which renders it look as if milk had been added. It contains fats in a state of

minute division, in a "Molecular state" as one writer calls it, or as Prof. F. T. Miles describes it, by an extreme similar "the dust of life." This fat may be obtained by agitating the urine with ether and allowing the ethereal solution to evaporate.

Bile is sometimes found in urine, and imparts to it a brown hue. Pettenkofer's and Heller's tests are sometimes used to detect this substance. Nitric acid reacts on the Biliverdin and Bilirubin with the peculiar play of colors so well known.

Kieselin is the cheesy scum that rises to the surface of the urine of pregnant women.

Medical Chemistry page 2

The mineral salts of Urine are obtained by evaporating the fluid to dryness and burning off the carbon in a China or Platinum crucible. They are usually found to consist of Calcium, Magnesium, Sodium, and sometimes Potassium & Lithium. The Phosphorus is very useful in the Forensic analysis of these substances.

Human Urine was once considered abominable. All flavour such - Urina was given as a name. On a person with refined sensibilities it would probably have an emetic influence. At the present time no medicinal properties are attributed to it.

excretion. unless we except those rare cases where it has been used as an injection for gonorrhœa. Monsieur Roquette states that he has cured two patients who happened to be running together, by giving Cubebs to one and directing the other to insert his friends urine.

Incontinence is a painful condition due to the kidneys ceasing to perform their function. The treatment consists in combating the disease by diaphoresis, and the use of diuretics, and by external applications to the lumbar regions.

Enuresis, or incontinence of urine is due to paralysis of the sphincter of

Remarks on Urinary Diseases Page 72

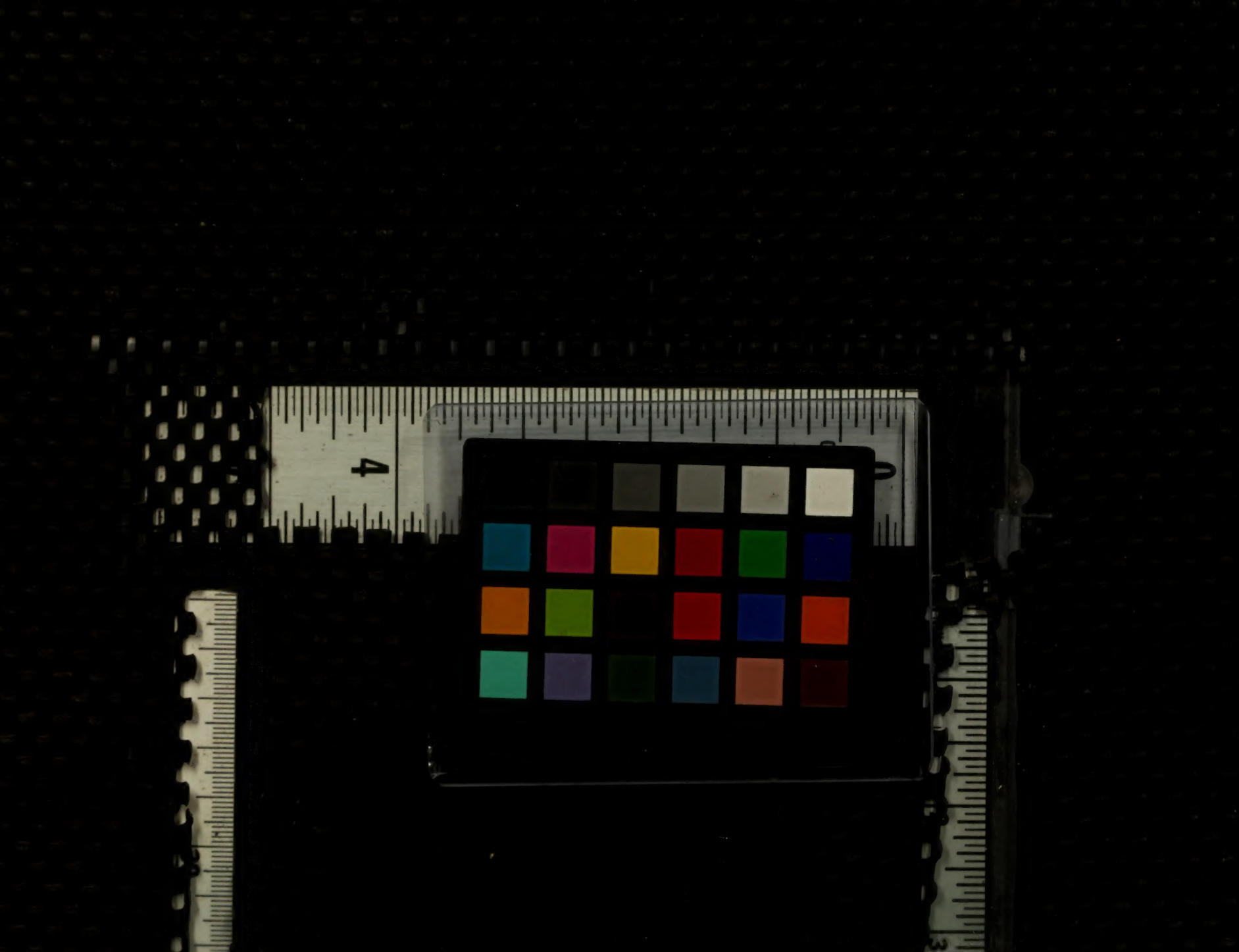
the bladder, Belladonna in gr. ¼ ever is good treatment in this case.

Retention of urine is caused by the non contraction of the bladder, it is attended with a constant dribbling away of water and is liable to be mistaken for incontinence.

As the patient is unable to empty his bladder his urine should be drawn off three or four times a day with a Catheter.

When we wish to increase the amount of urine we give some one of the many diuretics, as we desire either to increase the watery or solid portion of the excretion, These diuretics, it should be

remembered, are always to be given cold, for if hot a disastrous reaction is produced.

Zenas Barnum.

Feb. 15th 1878